International Astronomical Union XXVth General Assembly

July 13-26 2003 Sydney, Australia

Contents

| Annex 1 | Timeline of Events |
|----------|---|
| Annex 2 | National Organizing Committee Members |
| Annex 3 | Opening Ceremony |
| Annex 4 | Student-Volunteer Program |
| Annex 5 | Tours Program |
| Annex 6 | The Australian Festival of Astronomy |
| Annex 7 | Associated Public Events |
| Annex 8 | "Astronomy on the Go" |
| Annex 9 | Room Allocations |
| Annex 10 | Astro Expo Exhibitor listing |
| Annex 11 | Industry Day |
| Annex 12 | Delegate List |
| Annex 13 | The Australian Festival of Astronomy - Marketing Report |

ANNEX 1

INTERNATIONAL ASTRONOMY UNION

25TH GENERAL ASSEMBLY

Timeline of Events

| 1994 | | |
|------------|----------|---|
| | | At Don Mathewson's invitation, IAU Executive Committee members |
| | | visit Australia Jeremy Mould heads move to bid for 2003 GA in Sydney |
| | | Jeremy Mould heads move to bid for 2003 GA in Sydney |
| 1995 | | |
| | | Bid for 2003 GA in Sydney submitted to IAU |
| 1997 | | |
| Aug | | Sydney awarded 2003 GA during Kyoto GA |
| | | Jeremy Mould calls for expressions of interest to form LOC (NOC) |
| 1998 | | |
| Apr | | John Norris convenes 1 st meeting of NOC |
| | | NOC decide on SCEC for GA venue |
| Sep | | Convention Centre booked for period July 13-26, 2003? Lawrence Cram takes over Chair for 5 th NOC meeting |
| Sep Sep | | NOC call for tenders for provision of PCO services |
| Dec | | 7 th NOC meeting spent visiting two candidate PCO companies |
| 1999 | | |
| Mar | | Raymond Haynes takes over NOC Chair for 8 th NOC meeting |
| Jun | | ICMS chosen as GA PCO at the 9th NOC meeting |
| Jun | | Use of Sydney Opera House for Opening Ceremony considered |
| Oct | | Preliminary budget tabled at 11 th NOC meeting |
| 2000 | | |
| May | | Logo design selected at 14 th NOC meeting |
| Aug | | Sydney GA display and David Malin presentation at Manchester IAU GA |
| Nov | | NOC sub-committees established at 16 th NOC meeting |
| Dec | | Harry Hyland becomes NOC Chair for 17 th NOC meeting |
| 2001 | | |
| | 4.0 | Tentative bookings of hotel and university college accommodation |
| Apr | 18 | IAU General Secretary Hans Rickman makes eight-day visit to Sydney |
| Apr Jul | 19 17 | 18 th NOC meeting with Hans Rickman attending Revised budget discussed at 19 th NOC meeting |
| JUI | 1 / | Revised budget discussed at 19 MOC illeeting |

| 2002 | | |
|------|-------|--|
| Apr | 19 | At 22 nd NOC meeting, John Whiteoak added to Committee as Co-Chair, |
| Apr | 19 | David Ellyard appointed as NOC Executive Officer and Chairman of the Sponsorship and Exhibition Sub-Committee |
| May | 22 | 23 rd NOC Meeting |
| Jun | 26-28 | IAU General Secretary in Sydney for GA discussions |
| Jun | 27 | 24 th NOC Meeting with IAU General Secretary attending; Registration form and fee levels signed off |
| Aug | 14 | 25 th NOC Meeting; planning commenced for combined public/professional exhibition |
| Sep | 9 | Appointment of DVA-Navion to provide Sponsorship Consulting Services for a period of six months |
| Sep | 17 | 26 th NOC Meeting |
| Nov | 7 | 27 th NOC Meeting; NOC finances low and ATNF loan discussed |
| Nov | 14 | First Risk Management Analysis of GA finances |
| Dec | 17 | 28 th NOC Meeting; projected GA budget 'frozen' |
| 2003 | | |
| Jan | 17 | 29 th NOC Meeting |
| Feb | 15 | Original deadline for Abstracts to reach Symposium/JD/SPS SOCs |
| | 15 | Deadline for IAU Travel Grant applications to reach Symposium SOCs or for other meetings to reach IAU General Secretary |
| | 20 | 30 th NOC meeting |
| Mar | 1 | Extended deadline for Abstracts to reach Symposium/JD/SPS SOCs |
| | 1 | Symposium SOC Travel Grant recommendations to reach IAU General Secretary |
| | 15 | General Secretary sent first results to Travel Grant applicants |
| | 18 | 31 st NOC Meeting |
| | 26 | CSIRO agreement to provide \$100,000 (\$40,000 cash, \$60,000 'in-kind') for GA sponsorship |
| Apr | 1 | Deadline for inclusion of meeting programs in the GA Programme Book |
| | 11 | Connell Wagner agrees to \$30,000 sponsorship (\$20,000 in-kind) of 'Industry Day' event |
| | 30 | Deadline for GA Early Registration |
| | 15 | Final approved Abstracts for Abstract Book to reach ICMS |
| | 15 | 32 nd NOC Meeting |
| May | 1,6 | Second Risk Management Analysis of GA Budget |
| | 14 | 33 rd NOC Meeting |
| | 26 | Approval by Federal Government of \$50,000 funding for 'International Conference Support' and \$100,000 funding for 'International Showcasing' |
| | 30 | Final proposal for Internet Cafe |
| | 31 | Extended deadline for GA Early Registration |
| | 31 | Extended deadline for final approved Abstracts |
| Jun | 10 | 34 th NOC Meeting |
| | 16 | Approval of Federal Government of \$40,000 funding for support of |
| | | 'Industry Day' |
| Jul | 1 | 35 th NOC Meeting |
| | 11 | End of GA pre-registration |
| | 12 | Start of GA on-site registration |
| | 12 | 36 th NOC Meeting |
| | 14 | Scientific meetings begin |
| | | |

- 14-17 IAU Symposia 216, 217, 218
- Formal GA Opening and First Session of GA25
- 15 Astro Expo begins
- 18-21 Public admission to Astro Expo
- 21-25 IAU Symposia 219, 220
- 22-25 IAU Symposium 221
- 23 Industry Day
- 24 Second Session of GA25 and Closing Ceremony
- 24 GA 'Banquet'
- 25 Scientific meetings end

ANNEX 2

INTERNATIONAL ASTRONOMICAL UNION

 25^{TH} General Assembly July 13-26 2003

National Organizing Committee Members

| Attendee | | Affiliation | Meeting Range |
|----------|--------------|-------------|---------------|
| М. | Burton | UNSW | 16-36 |
| | Cram | USyd | 1-19 |
| | Davis | UNSW | 34-36 |
| Μ. | Drinkwater | UMel | 6-7 |
| R. | Ekers | ATNF | 18-36 |
| J. | Everett | UNSW | 8-36 |
| J. | Hawthorn | AAO | 20-21 |
| R. | Haynes | ATNF/UTas | 1-36 |
| Н. | Hyland | SCU/JCU | 1-36 |
| W. | Lawson | UNSW | 1-23 |
| S. | Little | ATNF | 19-36 |
| N. | Lomb | PHM | 2-36 |
| D. | Malin | AAO | 1-18 |
| R. | Manchester | ATNF | 13-36 |
| J. | Nicholls | USyd | 25-28 |
| J. | Norris | ANU | 1-7 |
| J. | O'Byrne | USyd | 4-36 |
| Ε. | Pacey | ATNF | 1-19 |
| В. | Peterson | ANU | 8-36 |
| Α. | Schinckel | UNSW | 1-4 |
| Η. | Sim | ATNF | 19-36 |
| | Turtle | USyd | 8-36 |
| | Vaughan | UMac | 2-36 |
| | Webster | UMel | 17-36 |
| | White | UWS/JCU | 8-36 |
| | Whiteoak | ATNF | 22-36 |
| W. | Zealey | UWol | 1-25 |
| | | | |
| Р. | Beckton | | 9-11 |
| | Butterworth | ı | 16-27 |
| | Christopher | | 29-36 |
| | - | | |

ICMS

| J. | Gorton | 28-32 |
|----|-----------|-------|
| В. | Holliday | 20-36 |
| F. | Houbert | 22-27 |
| L. | Messenger | 11-15 |
| L. | Phillips | 21-25 |
| S. | Ramirez | 17-18 |
| C. | Ross | 15-16 |

Contractor

D. Ellyard 22-25

Affiliations

| _ | -40-110 | |
|---|---------|---------------------------------------|
| | AAO | Anglo-Australian Observatory |
| | ANU | Australian National University |
| | ATNF | Australia Telescope National Facility |
| | JCU | James Cook University |
| | PHM | Powerhouse Museum |
| | SCU | Southern Cross University |
| | UMac | Macquarie University |
| | UMel | University of Melbourne |
| | UNSW | University of New South Wales |
| | USyd | University of Sydney |
| | UTas | University of Tasmania |
| | UWol | University of Wollongong |
| | UWS | University of Western Sydney |
| | | |



XXVth IAU-GA 2003 Opening Ceremony

Tuesday 15 July 2003 • Concert Hall • Sydney Ope<mark>ra House</mark>











The Peter Gruber Foundation

Honoring and Encouraging the Best

he Peter Gruber Foundation gives international prizes annually in the fields of genetics, cosmology, justice and, beginning this year, women's rights. Prize winners are selected by a panel of experts in each field. The goal of each prize is to recognize and honor an individual or individuals who have made significant contributions in the discipline and, by shining a spotlight on them, encourage others to support signal achievement in the various fields.

Winners of prizes from The Peter Gruber Foundation are:

Genetics

Dr. David Botstein - 2003

Dr. H. Robert Horvitz - 2002

Dr. Rudolf Jaenisch - 2001

Cosmology

Prof. Rashid Sunyaev - 2003

Dr. Vera Rubin - 2002

Sir Martin Rees - 2001

Dr. Allan R. Sandage - 2000

Dr. Phillip J.E. Peebles - 2000

Justice

Fali Nariman - 2002 Justice Anthony Gubbay and the Law Society of Zimbabwe - 2001



THE PETER GRUBER FOUNDATION

6000 Estate Charlotte Amalie St. Thomas, U.S.V.I. 00802 www.petergruberfoundation.org

PROGRAMME

National Anthem: Performed by Lauren Easton

Performance: Traditional welcome by Goomblar, and members of

Descendance Dance Company

Master of Ceremonies: Professor Harry Hyland

Co-Chair National Organising Committee IAU-GA

Address: Professor Rachel Webster

President, National Committee for Astronomy of the

Australian Academy of Science

Dr Robin J Batterham Chief Scientist, Australia

Performance: Composition by Sandy Evans

Images by Professor David Malin

Performed by Sandy Evans - saxophone and

Phil Slater - trumpet and conch shell

Official Welcome: The Hon Dr Brendan Nelson

Minister for Education, Science and Training

Address: Professor Franco Pacini

President of the IAU

Presentation of the 2003 Cosmology Prize

Peter Gruber Foundation

Master of Ceremonies: Larry E Tise

Awarded to Rashid Sunvaev

Max Planck Institute, Germany

Address: Patricia Murphy Gruber

President, Peter Gruber Foundation

Professor Lodewijk Woltjer, France

Past President of the IAU
Professor Virginia Trimble
University of Maryland, USA

Performance: Dr Robin Batterham performs on

The Grand Organ

'Out There' composed by Andrew Batterham Non nobis Dominie composed by Patrick Doyle

Accompanied by the Voice Australia Choir

Conductor: Dr Steve Watson

Interval: 20 minutes

First Session of IAU General Assembly

PERFORMERS



Lauren Easton is one of Australia's rising stars. She has performed with the Australian Opera and toured throughout the USA for the Olympic Arts Festival, which included a performance in Carnegie Hall. Lauren is currently studying at the University of New South Wales for a Bachelor of Music Degree, where she has been awarded the prestigious Sony Foundation Scholarship.

Goomblar

Goomblar Wylo is an Australian Aborigine from the Birri-Gubba and Wakka Wakka tribes of South East Queensland. He has toured almost every continent on the planet, starred in feature films, played the worlds biggest festivals, corporate events, schools and universities, and is a top selling recording artist.

Descendance Aboriginal Dance Group

Descendance is a professional performing troupe, presenting traditional and contemporary dance and theatre.

Descendance members range from Mount Isa across to Rockhampton, up to Cape York and around the Torres Strait Islands. They have worked in film, theatre, television, festivals and corporate events, showcasing the spirit of both Aboriginal and Torres Strait Island through their powerful style of dance and music.

Sandy Evans

Sandy Evans is one of Australia's leading jazz musicians and composers. She has won many awards for her work, including a Young Australian Creative Fellowship. She was a featured soloist on the roof of the Sydney Opera House at the dawn of the new millenium. Recent highlights have been her major work Testimony, and international festival performances by her group, the Sandy Evans Trio.

Voice Australia Choir

Voice Australia is a vocal ensemble chosen to support performances including Michael Crawford in Concert, Elvis the Concert, Gershwin Swings & Swings and Porgy and Bess. They have performed at the Sydney Opera House for UNICEF and Recondiliation as well as Handel's Messiah at St Mary's Cathedral. They have presented a number of special Christmas Concerts around Sydney. They are active in the recording studio as featured back up singers for many of the recordings for Sydney's national and international sporting events. Their musical director is Dr Steve Watson.

Dr Steve Watson

Steve Watson is Principal Conductor of the Sydney Concert Orchestra and has also conducted the Sydney International Orchestra, The Sydney Youth Orchestra and the SBS (Special Broadcasting Service) Youth Orchestra. He is Musical Director of the Beethoven Society of Australia. He has been a Senior Lecturer in Music and Director of the Academy of Music at the University of Western Sydney. More recently his focus has been on orchestral and choral conducting and the writing of arrangements and orchestrations.

Andrew Batterham

Andrew Batterham (born 1968) graduated B Mus from Melbourne University. He went on to study composition at the VCA. He lives as a composer in Melbourne and has had commissions from the ABC and others. His symphonic works have been performed by the Melbourne Symphony and the Brisbane Symphony orchestras. This current work, "Out There", has been written for this occasion.

Robin Batterham

Robin Batterham has a performance diploma in organ. Recent concerts include Rome, Aachen, Hong Kong, Melbourne (Concert Hall) as well as concerts associated with the music making at Scots Church in Melbourne where he is organist.

Created and produced by



ANNEX 4

IAU 25th GENERAL ASSEMBLY 2003

Report on the Student-Volunteer Program for the General Assembly

Tamara Davis

University of New South Wales

At the IAU General Assembly in Sydney, Australian university students were given the option of helping out at the conference for up to five days in exchange for a discounted registration fee of \$220. Ninety-four students took up this offer. If you are interested in the statistics, there were 52 males and 42 females. Divided by institution there were 30 from the Australian National University, 20 from the University of New South Wales, 16 from the University of Melbourne and 15 From the University of. Sydney; the remaining were scattered between the University of Tasmania, University of. Queensland, University of Wollongong, Swinburne University, Maquarie University and Monash University

The organisation of the volunteers started by gathering the names and contact details of the students. This list was continuously updated as ICMS received new student registrations. The list of jobs that the students would be required to do was compiled through discussions with Lee Christopher at ICMS and the National Organising Committee. I then emailed all the students asking for details concerning when they were available to do their shifts, and whether they had any special skills. The special skills that proved most useful were knowledge of other languages (for the airport welcoming committee), computer networking or trouble-shooting knowledge, and the ability to run a planetarium. Once this information had been gathered a roster was created and sent to all the students. An email group was created by which the students could communicate between each other and request shift swaps if necessary.

The students first started work on the weekend before the conference, when a welcoming group began greeting arrivals at Sydney International Airport. This group was not widely required, but very much appreciated by those who did use the service. The students were heavily involved in the pre-conference setup. They provided the primary work-force packing the delegate's satchels, they labeled the pigeon holes, and they prepared the poster boards. Students with some networking experience were assigned to assist Shaun Amy in wiring the Conference Centre for the Internet Cafe and the wireless internet. The weekend's preparation also included a tour of the facility, and an introduction to the audio-visual system. As a result, there was a hoard of 30 students who knew their way

around the Conference Centre and could provide directions for delegates and speakers during the General Assembly, in particular the busy first couple of days.

Once the conference began the students, identified by their bright red vests, became the general helpers for delegates. There were morning and afternoon shifts, each with a "team leader" to assign jobs for the students. The original roster was used as a guideline, but the team leader responded to whatever was urgent at the time and reassigned students to wherever they were needed.

During the entire conference the students staffed the "satchel pick-up" area at the registration desk. This soon became the help-point for delegates, and many general questions were directed to the students there. In the early stages of the conference students were assigned to key traffic points to help direct lost delegates. They were also assigned to poster board areas to help delegates find where their poster should go. When requests were made for blanket pigeon hole dumps, it was the students who filled the pigeon holes. Students also worked as door monitors for the large rooms, but it was found that this was not particularly useful, and they were often reassigned to other tasks. Another small task was taking head-counts to record participation rates in the various symposia and joint discussions.

More specific tasks included working in the media room, where daily the students would write articles for the "Magellanic Times" as well as act as runners for the media staff to find the people they wanted to interview. At the last minute the media office hired four full-time helpers. However, since students were preferred for reporting on scientific events, these hired helpers were used to replace some students on other tasks. Two hired helpers were assigned to the audio-visual room, where they worked for the entire two weeks. The other two were assigned to the IAU office, where they spent most of their time.

Students were also used at the external events, taking tickets and acting as ushers at the public talks. During the public expo they supported many of the attractions, running the Starlab planetarium, staffing the "Ask an Astronomer" stand, running a telescope outside the exhibition hall, staffing many of the stands, and again helping with the public talks. They also helped out at the North Sydney public viewing night.

Some lunch was provided for the volunteers by ICMS, and this was very much appreciated.

So concludes my summary of the main tasks of the student volunteers. There are several comments that should be made that may assist the organisers next time:

- 1) Assign more students for the setup and the first couple of days. The second week organization ran itself quite smoothly, and few general helpers were needed.
- 2) If at all possible, posters should not be moved during the conference. Taking down posters and safely returning them to delegates was one of the more difficult and time-consuming tasks performed by the students. Delegates should be clearly told when to remove their posters, so loss and damage can be avoided.

- 3) Assigning specific jobs to specific students before the conference is not always useful (except when specific skills are required). It is more useful to simply have a pool of help available, and a team leader who can assign jobs as the need arises. Flexibility is the key. However, a clear list of the jobs that are definately required is very important to enable the right number of helpers to be available at the right time.
- 4) Ease of communication with the team leader is essential. The students need a permanent contact point, and preferably a mobile phone to carry if they need to leave their post.
- 5) It is vital to give the students a very good briefing before they start work, and giving them some easily identifiable clothing (like the red vests) is useful.
- 6) While working, the students require a secure location for their bags and valuables.

One downside was the "Volunteer" label on the students' name-badges. This was readily interpreted by the delegates to mean that the helpers weren't participating in the conference. This may have impaired the students' enjoyment of the conference from a scientific perspective, as the other delegates may not have taken them seriously as researchers. "Student" would have been a more appropriate label.

The student-volunteers were a great success. I accepted many words of praise from many different people on the behaviour of the volunteers. They were described by a Convention Centre organiser as the best volunteers that the Centre had ever had. This was primarily because the students were naturally very cooperative, but was also achieved by a fostered sense of community amongst them. We organised several get-togethers around town, and provided a forum in which students from all over the country could get to know each other. This became an added benefit of the volunteer scheme, and hopefully enhanced the student experience at the General Assembly.

ANNEX 5

Report on Tours Program for IAU2003

As part of IAU2003 a wide range of tours was planned and undertaken for the participants and their friends. These tours were well received, with many people taking the opportunity to travel around Sydney and further afield during, before or after the congress.

The attached table lists the tours undertaken and the number of participants.

Longer tours were offered before the General Assembly began, but only limited numbers of participants availed themselves of the offers, with a Tasmanian Tour being cancelled prior to the Assembly through lack of support. After the Assembly three tours were undertaken: Kakadu & Arnhemland in the far north of Australia, the Red Centre of Australia near Alice Springs, and a Barrier Reef cruise.

For the areas closer to Sydney, the tours most favoured were the Kur-Ring-Gai bushwalking, Canberra, the Hunter Valley, and locations containing koalas and kangaroos.

We had positive feedback from the Canberra 'day trippers' - the delegates were pleased that they could Mt Stromlo to see the effects of the recent bush fires.

Overall, I believe that most people were satisfied with the selection of tours. The day-tour bookings certainly picked up tremendously once the participants were in Sydney. This seems to be the trend these days, with most people not wishing to commit themselves beforehand, finding it easier to book on-site once they know their schedule.

The astronomy community provided tour guides on most of these tours and this was also welcomed by participants.

We found that the tour company, General Travel, did a good job in organizing the tours and providing on-site booking facilities throughout the conference. However, some General Assembly attendees considered some tours quite expensive and felt that they could not afford them.

Raymond Haynes Chairman, NOC Hospitality, Accommodation & Tours Sub-Committee



General Travel Australia

A Member of the General Travel Group Pty Ltd ACN 003 133 551 ABN 85 003 133 551

10th Floor, 33 Berry Street North Sydney NSW 2060 Australia

Tel +61 2 9954 2600 Fax +61 2 9954 0421

FINAL TOURS SUMMARY

<u>IAU – JULY 2003</u>

| TOUR | DATE | NUMBERS |
|---------------------------|---------|-----------|
| PRE & POST TOURS | | |
| Kakadu & Arnhemland | | 17 |
| Post Red Centre | | 18 |
| Cruising the Barrier Reef | | 15 |
| Pre Red Centre | | 6 |
| Kimberley | | cancelled |
| | | |
| DAY TOURS | | |
| City of Sydney | 13 July | 15 |
| Coffee Cruise | 13 July | 4 |
| Koalas & Kangaroos | 13 July | 14 |
| Opera Afloat | 14 July | 13 |
| Bridge Climb | 14 July | 5 |
| Madame Butterfly | 14 July | 24 |
| City of Sydney | 15 July | 27 |
| Bridge Climb | 16 July | 5 |
| Ku ring gai Bushwalking | 16 July | 29 |
| Observatory Evening | 16 July | 12 |
| Blue Mountains | 17 July | 17 |
| Bridge Climb | 17 July | 5 |
| Koalas & Kangaroos | 17 July | 28 |
| Madame Butterfly | 17 July | 44 |
| Creation of an Opera | 17 July | 10 |
| Coffee Cruise | 18 July | 40 |
| Observatory Evening | 18 July | 7 |
| Aboriginal Walkabout | 18 July | 15 |
| Northern Beaches | 19 July | 11 |
| Blue Mountains Hiking | 19 July | 68 |
| Canberra | 19 July | 34 |
| Dinner Cruise | 19 July | 17 |
| Hunter Valley Overnight | 19 July | 4 |
| Sheep Station | 19 July | 32 |
| Blue Mountains 4WD | 20 July | 71 |

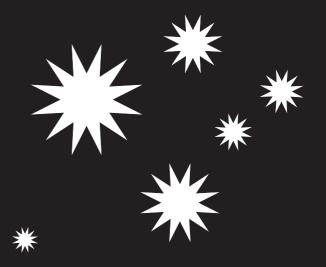
| City of Sydney | 20 July | 32 |
|-------------------------|---------|-----------|
| Hunter Valley | 20 July | 38 |
| Koalas & Kangaroos | 20 July | 65 |
| Learn to Surf | 20 July | 8 |
| Coffee Cruise | 21 July | 19 |
| Observatory Evening | 21 July | 19 |
| Sheep Station | 21 July | 11 |
| Aboriginal Walkabout | 21 July | cancelled |
| Ku ring gai Bushwalking | 22 July | 23 |
| Observatory Evening | 22 July | 22 |
| Creation of an Opera | 22 July | cancelled |
| | | |
| Bridge Climb | 22 July | 5 |
| Opera Afloat | 23 July | 26 |
| Northern Beaches | 23 July | 4 |
| Blue Mountains | 23 July | 23 |
| Koalas & Kangaroos | 23 July | 20 |
| Creation of an Opera | 24 July | 15 |
| Aboriginal Walkabout | 25 July | cancelled |

Annex

The Australian Festival of Astronomy, in conjunction with the International Astronomical Union@ 25th General Assembly, brings the Universe to Sydney in July 2003. Eye-opening talks all around Sydney, concerts, international exhibits and night viewings are just a little of what@ in store for this star-studded month.

The Australian Festival of Astronomy

meet the stars - all july 2003



ASTROEXPO



AstroExpo is a must-see for anyone with an interest in the sky and the Universe.

For four days only - Friday 18 July to Monday 21July - you can see new telescope designs, check out awe-inspiring displays from observatories around the world, discover every astronomy book under the sun, and don@miss The Australian Pavilion for special insight into our homegrown technology and expertise. Australia is a leading contender for major forthcoming astronomical projects such as the world's largest scientific instrument: The Square Kilometre Array (SKA) Đhere@your chance to see why.

Other highlights include: an inflatable planetarium

> 8 amazing lectures at the AstroExpo Theatre (Saturday & Sunday) by leading astronomers from around the world talking about all things universal.

daily Ask an Astronomer desk so enthusiasts have the opportunity to ask any question under the sun about astronomy - and

exciting images and videos from NASA and from the Hubble Space Telescope

Entry to AstroExpo is \$10 per adult, \$5 per concession, \$25 per family of 4+. Includes GST.

HALL 5 OF THE SYDNEY CONVENTION & EXHIBITION CENTRE

Friday 11am to 4pm Saturday 11am to 6pm Sunday 11am to 5pm 12noon £6.30pm Monday

SEAT GRIPPING UNIVERSAL TALKS



Key talks from the world@leading astronomers on the Universe and the implications for Planet Earth.

The State of the Universe ĐMonday 14 July @ 7pm

¥ Professor Paul Davies, Professor of Natural Philosophy in the Australian Centre for Astrobiology at Macquarie University unfolds the evolution of the Universe;

The Danger from Space - Thursday 17 July @ 7pm

¥ Dr David Morrison, Senior Scientist, NASA Astrobiology Institute, Dr Alan Harris, Senior Research Scientist, Space Science Institute, Colorado and Dr Andrea Milani, University of Pisa discuss the very real asteroid threats that we face from space; and

The Expansion of the Universe - Monday 21 July @ 7pm

¥ Professor Robert P. Kirshner, Clowes Professor of Science, Harvard University reveals how our extravagant Universe is expanding É very fast

HARBOURSIDE AUDITORIUM 2 AT THE SYDNEY CONVENTION & EXHIBITION CENTRE, DARLING HARBOUR

These particular talks cost \$10 per adult/\$5 per concession/\$25 per family of 4+. Book with Nicole on 9241 1478.

LIGHTS OUT FOR THE FESTIVAL OF ASTRONOMY NORTH SYDNEY DFANS 2003



Following its successful debut last year, FANS 2003 is on Sunday 20 July at North Sydney Oval from 6pm to 9.30pm. Entry is free. Refreshments are available.

Brilliant for anyone and everyone who loves viewing the stars, this special evening is hosted by the combined amateur astronomy societies of Sydney and surrounds, and sponsored by North Sydney Council. Local businesses will again turn their building lights and signs off so everyone can truly enjoy the cosmos.

Over 100 telescopes, many handmade, will be on-hand to view the many exciting sights in the southern sky, especially around the Southern Cross which will be exceptionally favourably placed high in the south. These sights include the magnificent double star Alpha Centauri, the beautiful Jewel Box star cluster and Omega Centauri, which is a ball of millions of stars that are as old as our galaxy.

Avid amateur astronomers will explain how to find constellations and other sights in the sky. There will also be informative displays, beautiful colour images by astronomical photographer Dr David Malin on a giant screen and interesting astronomical talks.

ASTRONOMICAL EXPERTS SPEAK IN PARRAMATTA - IS THERE LIFE OUT THERE?



Parramatta City Council hosts two **FREE** talks at the Lennox Theatre in the Riverside Theatre Complex.

Mars: The Inside Story of the Red Planet - Friday 18 July @ 8pm

Heather Couper and Nigel Henbest discuss the idea of life on Mars. Based on their book Mars: The Inside Story of the Red Planet, and raise many of the mysteries that surround the enigmatic Red Planet. Why, for instance, have so many spacecraft destined for Mars failed in spectacular fashion? ...this is a talk about what happens when humankind begins to push back the boundaries.

Extraterrestrial Intelligence

- Sunday 20 May @ 5pm

Dr. Jill Tarter from the SETI Institute talks about **Extraterrestrial Intelligence**. She explains how the search for Extraterrestrial Intelligence is not science fiction but science fact. That the hunt to find evidence of intelligent creatures elswhere in the Universe is one of our most exciting challenges.

This is both an eye- and mind- opening talk.





| | | | | · · · · · · · · · · · · · · · · · · · |
|---------|-----------------|---|--|--|
| JULY | TIME | EVENT | DESCRIPTION | VENUE |
| Daily | 6.15pm & 8.15pm | Night Viewings & 3D Theatre | | Sydney Observatory |
| | | Space: beyond this world Exhibition | | Powerhouse Museum |
| 1 to 27 | | Digistar 3 SP Planetarium | | Powerhouse Museum |
| 5 to 20 | | School Holiday Program | | Sydney Observatory & Powerhouse Museum |
| 1 | Continuous | Digistar 3 SP Planetarium | | Powerhouse Museum |
| 2 | 8.15pm | Guided Night Tours | | Sydney Observatory |
| 3 | Continuous | Digistar 3 SP Planetarium | | Powerhouse Museum |
| 4 | 8.15pm | Guided Night Tours | | Sydney Observatory |
| 5 | Continuous | Digistar 3 SP Planetarium | | Powerhouse Museum |
| 6 | 5.30-7.30pm | A Poetic Journey into the Cosmos | | Sydney Observatory |
| 7 | 2pm | Dreaming Stories of the Constellations Workshop | | Sydney Observatory |
| 8 | Continuous | Digistar 3 SP Planetarium | | Powerhouse Museum |
| 9 | 6.15-10pm | The Legend of how Sagittarius challenged Scorpius | | Sydney Observatory |
| 10 | 11am-3pm | Create a Martian | | Sydney Observatory |
| 11 | 7pm | Dr David Malin | The Wond'rous Glory of the Stars | Powerhouse Museum |
| 12 | 2pm | Prof Bryan Gaensler | New light on dead stars | Powerhouse Museum |
| 13 | 2pm | Heather Couper/Nigel Henbest | Mars: The inside story of the Red Planet | Sydney Observatory |
| 14 | 7pm | Prof Paul Davies | The State of the Universe | Harbourside Auditorium 2 |
| 15 | Continuous | Digistar 3 SP Planetarium | 1.10 01.110 01.110 01.110100 | Powerhouse Museum |
| 16 | 7-9pm | Science in the Pub | Life, the Universe & everything - debate with Fred Watson and David Malin | Harlequin Inn, Harris Street, Pyrmont |
| 17 | 7pm | Drs David Morrison, Alan Harris & Andrea Milani | Danger from Space: Are Near Earth Objects a catastrophe | Harbourside Auditorium 2 |
| | · | · | waiting to happen? | |
| 18 | 12.45pm | Live Cross to South Pole | | Hall 5, Sydney Convention & Exhibition Cent |
| | 6.15-10pm | The Legend of how Sagittarius challenged Scorpius | | Sydney Observatory |
| | 8pm | Heather Couper/Nigel Henbest | Mars: The inside story of the Red Planet | Lennox Theatre, Riverside Theatre, Parramatt |
| 8 to 21 | | ASTRO EXPO | | Hall 5, Sydney Convention & Exhibition Cent |
| 19 | 12noon | Prof Carlos Frenk | Dark matter, dark energy and the visible universe | Darling Harbour |
| | 1pm | Dr Robert Walsh | Basking in the sunshine: a new encounter with our closest star | |
| | 2pm | Dr Paul Murdin | The cosmic history of water | |
| | 3pm | Suzanne Débarbat | The search for longitude - the French view | |
| | 6-8pm | Beatlemania Concert & Night Telescope Viewings | | Cockle Bay, Darling Harbour |
| 20 | 12noon | Prof Ray Jayawardhana | New Worlds in the Making - the Birth of Planets | Hall 5, Sydney Convention & Exhibition Cent |
| | 1pm | Dr David Crawford | Who has stolen the Milky Way? / Light Pollution | Darling Harbour |
| | 2pm | Prof Donald Kurtz | Songs of the Stars - the real music of the spheres | |
| | 3pm | Prof Joel Primack/Nancy Abrams | Concert & Talk: Experiencing the Cosmos symbolically and musically | |
| | 12.30pm | Formal Opening of Scientific Memorial to Radio | In commemoration of outstanding astronomical discoveries made at | Rodney Reserve, Dover Heights |
| | | Astronomy at Dover Heights | Dover Heights | |
| | 5pm | Dr Jill Tarter | Search for Extraterestrial Intelligence - Science Fact not Science Ficton | Lennox Theatre, Riverside Theatre, Parramat |
| | 6pm-9.30pm | FANS 2003 | Over 100 telescopes, guides, talks and displays | North Sydney Oval, Miller Street |
| 21 | 7pm | Prof Bob Kirshner | The Extravagant Universe - exploding stars, dark energy and the accelerating cosmos | Harbourside Auditorium 2 |
| 22 | | Astronomical Concepts | 10 week course covering advanced concepts in astronomy | Sydney Observatory |
| 23 | 9am-6pm | Industry Day | Meet key decision-makers in world astronomy | Hall 5, Sydney Convention & Exhibition Cent |
| 23 | - Батт-ОртТ | Astronomical Concepts | 10 week course covering advanced concepts in astronomy | |
| 24 | 10om 4nm | | | Sydney Observatory Hall 5 Sydney Convention 8 Exhibition Cont |
| OF. | 10am-4pm | Schools Day at AstroExpo | Day talks, exhibits and films for Secondary students | Hall 5, Sydney Convention & Exhibition Cent |
| 25 | Continuous | Digistar 3 SP Planetarium | Other delice for release to the second secon | Powerhouse Museum |
| 26 | 9am-4.30pm | Teachers Day Workshop | Stimulating for science teachers. No astronomy expertise necessary. | Powerhouse Museum |
| 27 | Continuous | Digistar 3 SP Planetarium | | Powerhouse Museum |
| 28 | 8.15pm | Guided Night Tours | | Sydney Observatory |
| 29 | 8.15pm | Guided Night Tours | | Sydney Observatory |
| | 6pm | Dr Robert Walsh | Basking in the sunshine: a new encounter with our closest star | Squires Centre & Planetarium, |
| 30 | Оріп | Di Hobort Walon | , | Squires Way, Wollongong |

ANNEX 7

IAU General Assembly Sydney 2003

Associated Public Events Subcommittee

Report

Summary

The National Organising Committee felt that it was important to use the opportunity of the General Assembly being in Sydney to boost public interest in astronomy. It set up the Associated Public Events Subcommittee (APES) for this purpose.

The subcommittee held a whole range of highly successful events for the public in conjunction with the General Assembly under the umbrella of the Australian Festival of Astronomy. These events included a series of talks by leading astronomers from around the world before and during the General Assembly, a large viewing night conducted by amateur astronomers and a conference for amateur astronomers. Talks were held not only in central Sydney, but in the western suburbs of Sydney and around the country. Almost 30,000 people attended these events.

Background

APES held its first meeting on 20 November 2000, two years and eight months out from the GA. It was immediately established that the subcommittee would aim to organise an ambitious program of activities. Also that this program would not be held solely in central Sydney, but in the west of Sydney, in regional areas and in main centres around the country.

The first and subsequent early meetings were devoted to brain-storming. Numerous ideas, such as the following, were considered:

- ♦ National star relay five parties of astronomers travelling the country and converging on Sydney
- ♦ A trip around regional areas on NSW and Queensland using a DC3 plane
- Television debate with media personalities and astronomers
- ♦ Conference for amateur astronomers
- ♦ Exhibitions on astronomy
- ♦ Public lectures
- ♦ Large public viewing night in central Sydney
- ◆ 'Talk to an astronomer' telephone question answering service staffed by a 'call centre' of postgraduate students

Many of these ideas were further refined for inclusion in the final program of the Australian Festival of Astronomy during the 38 meetings of the subcommittee. Some culling of the ideas was also necessary as constraints on funding and on resources became better defined as the time of the GA came closer.

Funding

Funding of \$7500 was obtained from the Donovan Trust to hire a consultant to assist in planning the events. The Donovan Trust assists in astronomy education in Australia; this was their largest ever grant. The position was widely advertised and Mr David Ellyard was hired after considering the applications and after interviews with selected applicants. Mr Ellyard's role eventually focused on organising the complex touring astronomers program.

Further funding of \$4180 was obtained from the British Council Australia for the travelling astronomers program. Obviously this source of funding restricted the tours to astronomers from Britain, but that did not turn out to be a serious constraint. The amount from the British Council was supplemented by \$800 from the NOC.

The cost of \$20,000 for the publicist was also provided by the NOC. It also provided \$400 to pay for gifts for speakers.

The subcommittee

Nick Lomb chaired the subcommittee and was responsible, inter alia, for organising the speaker program in Sydney, liaising with amateur astronomers and maintaining a webpage for the public events. Tony Turtle took the minutes of the subcommittee meetings as well as the meetings with amateur astronomers. David Ellyard was hired as a consultant under the Donovan Trust grant, but stayed on the subcommittee after the funding ran out; he organised the touring astronomers program. Rob Hollow was in charge of the Astronomy Day for Teachers held in conjunction with IAU Commission 46 on the Teaching of Astronomy. Michael Burton arranged the Astronomy on the Go program using separate resources from his own organisation, the University of NSW. Others who provided valuable input were Helen Sim, Graeme White, Jamie Biggs via telephone from Perth and John Lattanzio via telephone from Melbourne. Wayne Orchiston and Alan Vaughan assisted with occasional useful advice.

The AstroExpo

The NOC decided to open up the professional exhibition held at the General Assembly to the public. This became the AstroExpo over four days in the middle of the General Assembly. Apart from the exhibits for the conference participants there were a few exhibits specifically for the public: an amateur astronomy booth, a blow-up Starlab planetarium provided by the University of NSW, an Ask an Astronomer desk arranged by the subcommittee and a booth from Sydney Observatory. As well there was a 150-seat theatrette with back-to-back talks from 12 noon to 4 pm on the Saturday and Sunday of the AstroExpo.

Amateur astronomers

APES invited representatives of all local amateur astronomical societies to a meeting on 5 February 2001 to explore their involvement in the General Assembly. A group of enthusiastic amateurs came together and over 26 meetings explored a range of options under the guidance of Nick Lomb and Tony Turtle representing APES.

The main event was a telescope viewing night for the general public with telescopes provided and staffed by amateurs from the various clubs. In a search for suitable

locations for the viewing night contact was made with North Sydney Council, which offered the use of its sporting oval and the associated function centre at no charge. Advantages of this location included the availability of toilets and food outlets capable of handling large numbers of people as well as good transport links. Moreover, the council assumed public liability for the event, which was a crucial undertaking.

A test run of the Festival of Astronomy North Sydney (FANS) in June 2002 was a great success with over 3000 people attending. The FANS night during the General Assembly itself was also successful, though numbers were slightly less due to poorer weather. The organisation was excellent with over 70 telescopes on the darkened oval and a large screen showing David Malin colour sky images. The darkness on the oval was assisted by the cooperation of the surrounding building owners in turning off their rooftop advertising signs. Inside the function centre there were public talks and numerous booths demonstrating astronomy related material.

The other events organised by the amateurs were a one day conference for amateurs with some of the overseas astronomers as speakers and a booth at the AstroExpo.

It should be noted that these meetings with APES have provided the various amateur societies in the vicinity of Sydney with the opportunity to discuss cooperating in various matters especially with regard to public liability insurance. These meetings are planned to continue as are annual FANS nights.

The Touring Astronomers program

This program was mainly funded by the British Council Australia and allowed presentations by astronomers attending the General Assembly in eight different centres around Australia. In this way the Festival of Astronomy extended over much of the country not just the city holding the General Assembly. A separate report is attached.

Publicity

Paula Opfer from The Axis Public Relations and Marketing Company was hired to create publicity for the Australian Festival of Astronomy and the AstroExpo. Working with Helen Sim who was in charge of publicity for the General Assembly itself and Nick Lomb, she arranged a media launch for the festival and the GA. She prepared a media kit for the festival with a large range of releases on the speakers and other events as well as producing flyers and arranging a website specifically for the Festival of Astronomy. A separate report is attached.

Astronomy on the Go

The idea of regional astronomy tours was taken up by Michael Burton, a member of the subcommittee. He organised the tours using students and funding from the University of NSW. In three separate tours before the General Assembly, the students gave 130 presentations to an audience of about 10,000 people. These presentations are not listed in the appendix as a separate report is attached.

Discussion

Through hard work by a limited number of people the General Assembly boosted the profile of astronomy with the public in Sydney and around Australia. This boost was directly through people attending lectures, the telescope viewing night or a planetarium presentation or indirectly through the large number of media reports.

The only event that was not a full success was the AstroExpo. Numbers of public visitors to the exhibition were disappointingly low – less than 1000 in total – and most of these came specifically to hear the talks on the weekend. It is clear that it is insufficient to put on an exhibition without the means of alerting and interesting people about the opportunity of visiting. Unfortunately, the AstroExpo was not a 'news' item that the media was willing to cover for free. It could only have been promoted with a significantly large advertising budget, as happens with other exhibitions like the Boat Show mounted at the same Darling Harbour venue.

Apart from the AstroExpo, all other events went well – they took place as planned and advertised and were enthusiastically received by the audiences. The care in selecting good speakers covering a wide range topics relating to modern astronomy was highly worthwhile, as was the many years of work in planning the various events.

The subcommittee would like to thank all speakers who willingly participated in the Festival of Astronomy and gave such excellent talks.

Prepared by Nick Lomb 1 September 2003

APPENDIX 1: Listing of events

Virtual reality planetarium

| Date | Event | Location | No. |
|--------------------|---------------------------|------------|--------|
| June 21 to July 27 | Digistar 3 SP Planetarium | Powerhouse | 12,744 |
| | | Museum | |

Talks before the General Assembly

| Date | Event | Location | No. |
|------------------|------------------------------|---------------|-----|
| Friday July 11 | Inaugural Allison-Levick | Coles Theatre | 280 |
| 7.00 pm | public lecture by Dr David | Powerhouse | |
| | Malin on "The Wond'rous | Museum | |
| | Glory of the Stars" | | |
| Saturday July 12 | Public lecture by Dr Bryan | Coles Theatre | 120 |
| 2.00 pm | Gaensler | Powerhouse | |
| | | Museum | |
| Sunday July 13 | Public lecture by science | Sydney | 170 |
| 2.00 pm | writers and broadcasters | Observatory | |
| | Heather Couper and Nigel | | |
| | Henbest on "Mars: The Inside | | |
| | Story of the Red Planet" | | |

Amateur astronomers

| Date | Event | Location | No. |
|---------------------------------------|-----------------------------|-------------------|------|
| Sunday July 13 "Pushing the limits" N | | Mason Theatre, | 100 |
| | conference for amateur | Macquarie | |
| | astronomers | University | |
| Sunday July 20 | Festival of Astronomy North | North Sydney Oval | 2075 |
| 6.00 pm | Sydney, a public viewing | | |

Talks during the General Assembly

| Date | Event | Location | No. |
|------------------|------------------------------|-------------------|-----|
| Monday July 14 | Harley Wood lecture by | Darling Harbour | 500 |
| 7.00 pm | Professor Paul Davies, | Conference Centre | |
| | Professor of Natural | | |
| | Philosophy in the Australian | | |
| | Centre for Astrobiology at | | |
| | Macquarie University on | | |
| | "The State of the Universe". | | |
| | Talk moderated by Robyn | | |
| | Williams | | |
| Thursday July 17 | Public forum with Dr Alan | Darling Harbour | 300 |
| 7.00 pm | Harris from the Space | Convention Centre | |
| | Science Institute Colorado, | | |

| | Dr Darling Harbour | | |
|----------------|-------------------------------|-------------------|-----|
| | _ | | |
| | Convention Centre Andrea | | |
| | Milani from the University of | | |
| | Pisa and Dr David Morrison | | |
| | from the NASA Astrobiology | | |
| | Institute on "The Danger | | |
| | from Space: Are Near Earth | | |
| | Objects a Catastrophe | | |
| | Waiting to Happen?" Talk | | |
| | moderated by Karl | | |
| | Kruszelnicki | | |
| Monday July 21 | Public lecture by Dr Robert | Darling Harbour | 450 |
| 7.00 pm | Kirshner on "The Extravagant | Conference Centre | |
| | Universe exploding stars, | | |
| | dark energy, and the | | |
| | accelerating cosmos". Talk | | |
| | moderated by John Doyle | | |

Teachers

| Date | Event | Location | No. |
|------------------|----------------------------|------------|-----|
| Saturday July 26 | Astronomy Day for teachers | Powerhouse | 41 |
| | | Museum | |

Talks in Western Sydney

| Date | Event | Location | No. |
|----------------|------------------------------|-------------------|-----|
| Friday July 18 | Public lecture by science | Riverside Theatre | 250 |
| 8.00 pm | writers and broadcasters | Parramatta | |
| | Heather Couper and Nigel | | |
| | Henbest on "Mars: The Inside | | |
| | Story of the Red Planet" | | |
| Sunday July 20 | Public lecture by Dr Jill | Riverside Theatre | 220 |
| 5.00 pm | Tarter on "SETI: Science | Parramatta | |
| | Fact, Not Fiction" | | |

Talks at the AstroExpo

| Date | Event | Location | No. |
|------------------|-----------------------------|-------------------|-----|
| Saturday July 19 | Professor Carlos Frenk on | Hall 5 | 120 |
| 12 noon | "Dark Matter, Dark Energy | Darling Harbour | |
| | and the Visible Universe" | Conference Centre | |
| Saturday July 19 | Dr Robert Walsh on "Basking | Hall 5 | 120 |
| 1.00 pm | in the Sunshine: A New | Darling Harbour | |
| | Encounter with our Closest | Conference Centre | |
| | Star" | | |
| Saturday July 19 | Dr Paul Murdin on "The | Hall 5 | 120 |
| 2.00 pm | Cosmic History of Water" | Darling Harbour | |
| | | Conference Centre | |

| Saturday July 19 | Dr Suzanne Débarbat on "The | Hall 5 | 120 |
|------------------|-------------------------------|-------------------|-----|
| 3.00 pm | Search for Longitude - the | Darling Harbour | |
| | French View" | Conference Centre | |
| Sunday July 20 | Professor Ray Jayawardhana | Hall 5 | 120 |
| 12 noon | on "New Worlds in the | Darling Harbour | |
| | Making: The Birth of | Conference Centre | |
| | Planets" | | |
| Sunday July 20 | Dr David Crawford on "Who | Hall 5 | 120 |
| 1.00 pm | has stolen the Milky Way?" | Darling Harbour | |
| | | Conference Centre | |
| Sunday July 20 | Dr Don Kurtz on "Songs of | Hall 5 | 120 |
| 2.00 pm | the stars - the real music of | Darling Harbour | |
| | the spheres" | Conference Centre | |
| Sunday July 20 | Professor Joel Primack and | Hall 5 | 40 |
| 3.00 pm | Nancy Abrams, combined | Darling Harbour | |
| | talk and concert on | Conference Centre | |
| | "Experiencing the Cosmos | | |
| | Symbolically and Musically" | | |

Talks outside Sydney

| Date | Event | Location | No. |
|------------------|--------------------------------|--------------------|-----|
| Wednesday July 2 | Public lecture by Dr Don | Elizabeth Jolly | 150 |
| 7.30 pm | Kurtz on "Songs of the stars - | Lecture Theatre | |
| | the real music of the spheres" | Curtin University | |
| | | PERTH | |
| Thursday July 3 | Public lecture by Dr Don | Melbourne | 49 |
| 6.30 pm | Kurtz on "Songs of the stars - | Planetarium | |
| | the real music of the spheres" | Scienceworks | |
| | | MELBOURNE | |
| Thursday July 17 | Public lecture by science | Redback Brewery | 50 |
| 7.00 pm | writers and broadcasters | North Melbourne | |
| | Heather Couper and Nigel | MELBOURNE | |
| | Henbest on "Mars: The Inside | | |
| | Story of the Red Planet" | | |
| Tuesday July 2 | Public lecture by science | Abel Smith Lecture | 200 |
| 6.00 pm | writers and broadcasters | Hall | |
| | Heather Couper and Nigel | University of | |
| | Henbest on "Mars: The Inside | Queensland | |
| | Story of the Red Planet" | BRISBANE | |
| Friday July 25 | Public lecture by science | Historic Council | 120 |
| 6.30 pm | writer and broadcaster | Chambers | |
| | Heather Couper on "Mars: | WAGGA | |
| | The Inside Story of the Red | | |
| | Planet" | | |
| Friday July 25 | Public lecture by science | Parkes Observatory | 67 |
| 7.30 pm | writer and broadcaster Nigel | Visitors Centre | |
| | Henbest on "Mars: The Inside | PARKES | |
| | Story of the Red Planet". | | |

Associated Public Events Subcommittee Report

| | Followed by telescope viewing of Mars | | |
|---------------------------|--|-------------------------------------|-----|
| Monday July 28 8.00 pm | Public lecture by Dr Robert Walsh on "Basking in the Sunshine: A New Encounter | Canberra Planetarium CANBERRA | 51 |
| | with our Closest Star" | | |
| Tuesday July 29 | Public lecture by Dr Robert | Mawson Lakes | 100 |
| 7.30 pm | Walsh on "Basking in the | Campus, University | |
| | Sunshine: A New Encounter | of South Australia | |
| | with our Closest Star" | ADELAIDE | |
| Wednesday July 30 | Public lecture by Dr Robert | Wollongong | 95 |
| 6.00 pm | Walsh on "Basking in the | Science Centre | |
| | Sunshine: A New Encounter with our Closest Star" | WOLLONGONG | |

ANNEX 8

Report on "Astronomy on the Go" Program

Michael Burton

School of Physics, University of New South Wales

How often do two thousand of the world's leading astronomers come to one's country? Not often! So was born the idea for 'Astronomy on the Go', to take advantage of the publicity that would be generated by the presence of over two thousand professional astronomers (one quarter of the world's total) at the International Astronomical Union's twenty-fifth General Assembly, in order to run a science outreach program, and do our best to stimulate interest in the sciences through our natural wonder about the stars. Over most of Australia, outside the major cities, people are generally aware of the spectacle of the night sky, there being relatively low levels of light pollution over Australia due to the low population density. No time is better to watch the Milky Way than in winter (for visitors from the North – that's now!), when the centre of the Galaxy passes directly overhead at midnight from the latitude of Sydney. Astronomy on the Go aimed to take advantage of both our natural curiosity about the Universe and the stellar display of the winter sky to motivate a public outreach program in science.

Astronomy on the Go was actually being run by science students from the University of New South Wales. Equally as important as bringing science to the public is the training of scientists with the skills to talk about their work in a comprehensible matter, and giving them the confidence to do so. We must hope that they can do better than the current generation of scientists in communicating the importance of science to the functioning of modern society, especially given the low levels of science literacy apparent across much of it. A large part of the program involved training some of the current crop of university students so that they could go out and talk about science in an entertaining and informative way. Astronomy on the Go thus started during the final session of the 2002 university year with the recruiting of students for the program. Around twenty-five put their hands up, with in the end some twenty participating. Some were postgraduates doing PhDs in astronomy, others were undergraduate physics students, while yet others were studying science communication, majoring in the biological sciences and not studying the physical sciences at all. Indeed one of the successes of Astronomy on the Go has been the bringing together of students from different disciplines, and their learning from each another through the different skills they each brought to the program.

Astronomy on the Go consisted of four distinct elements. The last two of these took place during the GA. These are two Science in the Pub events, on July 16th and 23rd, in the Harlequin Inn, just five minutes work from the Convention Centre, and a special Schools' Day in the Convention Centre on the 24th (during the time of the GA itself). However the major part of Astronomy on the Go has been the three tours conducted of regional New South Wales, visiting high schools during the daytime and conducting a 'Starry Starry Night' presentation in the evenings.

Before we could head out on the tours, though, we needed to learn what to do. So the first part of the program was to visit, in May this year, six schools around the Sydney metropolitan area. And before that we had to practice our presentations so that we wouldn't appear too raw to the school children! There were two types of presentations we gave, talks about the solar system or about the stars, and project SEARFE. Our talks were fairly conventional in nature, pretty picture slide shows of everybody's favourite astronomical objects. Project SEARFE was rather different, however, with the focus being on radio astronomy. It was an initiative from the University of Sydney, and then conducted with extensive support from the CSIRO (Australia's national science organisation), and aimed at the final year physics classes at school (the HSC year in Australia). A broadband, omni-directional radio antenna + receiver + PC was used to conduct an experiment measuring the radio emission background at the school, and incorporated into a presentation which discussed radio waves and radio astronomy, while featuring some of the key physical ideas associated with their detection and measurement. As part of the exercise the students conducted two 'standard' measurements of their radio frequency environment and then were given a disk with their data for them to upload on to the Astronomy on the Go website, for comparison with similar scans made at schools right around Australia. As you may have guessed by now, there was also a deeper message being given here, that Australia's RFI environment is among the lowest on our planet, with large areas of virtually uninhabited land over much of the continent, which also provides the most suitable location for the next generation of radio telescopes, LOFAR and the SKA.

To come back to the outreach program, our first task then was to prepare the presentations and practice them amongst ourselves, before then heading off to schools around the Sydney metropolitan district where we tested ourselves against our audience, the high school students. It was a learning experience all round! Most classes were very receptive to us, and the questions would flood in. But not with Year 10 classes! At that age it is just not cool to communicate with your teachers or to ask questions. Didn't we all pass through such a bellicose stage when we were about sixteen?!

The tours started in early June and lasted until just before the GA started. We conducted three tours, and imaginatively named them the Southern, the Western

and the Northern tours for the directions they set off from Sydney. A different group of students ran each tour, travelling around in a van which affectionately acquired the name "Daisy", through a story which can only be told by the students, and involves some of the bovine life encountered along the way. Each tour visited around five country towns along their cardinal directions, spending the days at high schools and the evenings with public presentations. At each school we would end up giving typically five or six presentations through the day. They would range from small groups of a dozen HSC-year students for SEARFE, to individual classes for some talks, to an entire year of 100 or more students for others. The latter could be quite challenging at times, especially if there was no microphone to drown out the sounds of excited chatter!

The evening entertainment was a presentation we called "Starry Starry Night", and featured an interactive discussion about the heavens, while viewing the changing colours of the sky from sunset until it became fully dark. We would talk about some of the features apparent in the sky, and use them to include a discussion of how modern science came into being through the process of quantitative measurement and analysis pioneered by the Renaissance astronomers. We would also bring in some of the cultural aspects of the night sky, legends from past civilisations, including some aboriginal mythology. In places where the sky was truly dark we were able to point out that most spectacular, and unexpected, "constellation", the Emu of aboriginal legend. If you get the chance to get outside Sydney look for it yourself, for it is quite striking, made up of the dark clouds spread along 30° of the Milky Way, from the Coalsack in Crux, to Sagittarius. Every Starry Starry night presentation had to be different, tailored for the local conditions. Sometimes we were lucky enough to be at an Observatory on a dark sky site, and the true wonder of the southern sky could be seen. Other sites were in town parks with streetlights around, and at other times we would be foiled by clouds. So we had a number of indoor presentations in readiness to complement the sky viewing, using planetarium software to show the motions in the sky, and a portable planetarium, as well as slide shows and the SEARFE equipment.

One of the activities we conducted is one you can join in yourself – a star counts exercise! Using a number of star maps drawn to different magnitudes of the South Cross to Pointers region, familiar to just about every Australian, the object was to find just how dark the sky was at your home by matching the charts to the sky above and seeing which one most closely resembles it. Download the activity sheet from the Astronomy on the Go website (see below for the URL), then enter the results through a web form, and compare with what others have found.

The website has been one of the features of Astronomy on the Go, providing not only the detailed itinerary for the tours and the program of presentations, but as a means of communication amongst the participants. Read the daily Blog that the students wrote on each tour, and then view the extensive picture gallery they compiled. Databases were also set up so that participants in SEARFE and the Dark Skies projects could also download their results and compare with

participants elsewhere, and find the darkest sites in the State, both for radio astronomy and for optical astronomy.

Putting Astronomy on the Go together has been an exhaustive process, involving much more than what was naively anticipated when we started last year. By the time we finish there will have been around 130 public presentations, of one sort or another, given to a total audience of about 10,000. Has it been worth it? Yes! Just to look at the students, exhausted but enthused, after a days talking astronomy to a diverse range of people is to know that it has worked! Producing quantitative statistics to satisfy an accountant may be another matter, but we all have no doubt that we've managed to inspire more than a few people along the way on our perambulating route around New South Wales!

Participants: UNSW staff-Michael Burton, Will Rifkin, Anita Pavic, Amy Winter. UNSW students-Marton Hidas, Tracey Hill, Steven Longmore, Cormac Purcell, Yael Augarten, Beau Bellamy, Michael Day, Mathias Kanzelsperger, Dorota Kubuj, Carmen Li, Juanita Mintono Phang, Jason Moore, Sherlin Ng, Dean Nicolson, Kylie Rivero-Glover, Liz Tay, Uwe Zell.

Metropolitan Schools: Catherine McCauley, Wenona, Mt Carmel High, Heritage College, Newington College, South Sydney High

Southern Tour: Batemans Bay, Nowra, Goulburn

Western Tour: Bathurst, Kelso, Mudgee, Dubbo, Cowra, Lithgow

Northern Tour: Taree, Port Macquarie, Westport, Coffs Harbour, Armidale,

Tamworth

Science in the Pub: July 16th and 23rd at the Harlequin Inn.

Schools Day: July 24th in the Sydney Convention Centre.

Astronomy on the Go website: www.phys.unsw.edu.au/outreach

Sponsors: The U Committee and the Faculty of Science of the University of New South Wales.

Pictures: see Astronomy on the Go website for an extensive collection.

Astronomy on the Go in a Nutshell: see below for complete itinerary for the program.

Astronomy on the Go

In a Nutshell

www.phys.unsw.edu.au/outreach

A science outreach program for the

International Astronomical Union General Assembly, Sydney July 2003

Metropolitan Area Visits

May 1: Catherine McCauley School, Five presentations

May 5: Wenona School, Five presentations

May 7: Mt Carmel High School, Four presentations

May 8: Heritage College, Three presentations

May 21: Newington College, Eight presentations

May 30: South Sydney High School, Seven presentations

The Launch

June 4: School of Physics, University of New South Wales

Regional Tours

Southern Tour

June 9: Public Talk, Batemans Bay High School, Michael Burton "Our place in the Cosmos" (Steve Wallace, 4472-7233)

June 10: Batemans Bay High School, Six presentations

June 10: Nowra High School, Three presentations

June 11: Nowra High School, Seven presentations

June 11: Starry Starry Night, Nowra High School (Vicki Templeton, 4421-4977)

June 12: Starry Starry Night, Goulburn High School (Vero Joseph, 4821-4022)

June 13: Goulburn High School, Six presentations

Western Tour

June 16: Bathurst High School, Six Presentations

June 16: Starry Starry Night, Bathurst Observatory (Ray Pickard, 6337-3988)

June 17: Kelso High School, Three presentations

June 18: Mudgee High School, Six presentations

June 18: Starry Starry Night, Mudgee Observatory (John Vetter, 9718-6314)

June 20: Dubbo Senior College, Two presentations

June 20: Dubbo Primary School, Two presentations

June 21: Starry Starry Night, Dubbo Observatory (Peter Nielson, 6885-3022)

June 23: Cowra High School, Four presentations

June 24: Starry Starry Night, Derby Falls Observatory, Cowra (Markham Monk, 6435-1900)

June 25: Starry Starry Night, Lithgow Hill School Oval (Lee Middleton, 6352-1422)

June 26: Lithgow High School, Six presentations

Northern Tour

June 23: Taree High School, Five presentations

June 23: Starry Starry Night, Taree Park (Peter Baker, 6552-1166)

June 24: Public Talk, Port Macquarie Observatory, Michael Burton "Stardust, the stuff of life" (Jim Daniel, 6583-1933)

June 25: Westport High School, Seven presentations

June 25: Port Macquarie School of the Air

June 27: Coffs Harbour High School, Six presentations

June 28: Starry Starry Night, Coffs Harbour High School (Giorgio Dal Pozzo, 6652-3466)

June 30: Armidale High School, Three sessions

June 30: Starry Starry Night, Armidale High School (Kevin Birkett, 6772-7466)

July 2: Tamworth High School, Four presentations

July 2: Starry Starry Night, McCarthy Catholic College, Tamworth (Ian Evans 6761-0800)

Science in the Pub

July 16, Harlequin Inn, Pyrmont, "Life the Universe & Everything" with Fred Watson and David Malin, compered by Alf Conlon

July 23, Harlequin Inn, Pyrmont, "What is a Planet?" With Penny Sackett, Pat Roche, Gibor Basri and Chris Tinney, compered by Fred Watson Schools Day

July 24, Sydney Convention Centre. Talks + IMAX + Expo (Anita Pavic, 9385-7311)

Charley Lineweaver: "Where is the Universe heading?"

Michael Burton: "Stardust-the stuff of life"

Maria Hunt: "The search for life in the Universe"

John Storey: "Astronomy in Antarctica—the quest to build the Earth's ultimate telescope"

The Team

Academics: Michael Burton and Will Rifkin

Science Student Centre: Anita Pavic and Amy Winter

Postgraduate students: Marton Hidas, Tracey Hill, Steven Longmore & Cormac Purcell

Undergraduate students: Beau Bellamy, Carmen Li, Dean Nicolson, Dorota

Kubuj, Helen Zhow, Jason Moore, Juanita Mintono Phang, Kylie Rivero-Glover,

Liz Tay, Mathias Kanzelsperger, Michael Day, Sherlin Ng, Uwe Zell, Yael Augarten

Sponsors

The U Committee, University of New South Wales

Faculty of Science, UNSW

School of Physics, UNSW

SEARFE: U. Sydney, CSIRO, UNSW, UTS, IBM, BAE Systems, Institute of Engineers, Perth Observatory, Australian Geographic

| NNEX 9 | IAU GA | A XXV Roo | m Alloca | itions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|----------------------|-------------------|---------------------------------|----------------------|--------------|----------------------------|---------------|----------------------------|-------------------|------------------------|--------------|----------------------------|---------------|--------------------|----------------|----------------------------------|-------------|------------------|----------------------------|----------------|------------------------|-----------|------------------------------------|---------------|-------------------------|------------------------------|---------|---|---------|
| raft 16 | 30-Jun-03 | Venue and | | 110110 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| oom Name | HA 1 | | Pyr 1 | Pyr 2 | HM 3 | HM 4 | TA | TM 1 | TM 2 | TB 1 | TB 2 | HM 1 | HM 2 | HM 5 | HM 6 | HM 7 | HM 8 | PM 1 | PM 2 | PM 3 | PM 4 | PM 5 | PM 6 | Sky 1 | Sky 2 | Sky 3 | Promenade | Merino | Ex Hall 5 Banquet Hal | l Merir |
| Capacity | 950 | 2550 | 220 P | 220 yr All | 200 | 200 | 1000 | 285 T | 285 M All | 440 | 895 | 12 | 140 | 140 | 90 | 90 | 90 | 195 | 55 | 65 | 90 | 90 | 70 | 100 | 100 | 100 | | 140 | | 140 |
| | \$6,479 | 9 \$8,547 | | 500 510.00 | \$1,034 | \$1,034 | \$6,479 | | 570 7,635 | \$4,510 | \$6,479 | \$803 | \$924 | \$924 | \$803 | \$803 | \$803 | \$1,034 | \$682 | \$682 | \$803 | \$682 | \$803 | \$1,265 | \$1,265 | \$1,265 | \$1,958 | \$924 | \$14,652 \$11,099 | |
| Usage | Symp/S | PS Symp/JD | | | JD/SPS Comm/Div | JD/Div | Symp/JD | | JD/Comm | | Symp/JD Comm/Div | IAU MO | P/DP Meetin | | Gen IAU | | Speaker Prep | Comm/Div | Comm/Div | | Media | Newspaper | ICMS | Comm/Div | | AU Executive FSC/RC Mtg | Registration | | . , , , , , , , , , , , , , , , , , , , | |
| Date&Slot | Time | | | | Communication | | | | | Commigati | 0011111111111 | | | | | | | | | | | | | | | l come mag | | | | |
| ın 13:1 ın 13:2 | | | | | | | | | | | | | P/DP Meetin | IAU& Off | Gen IAU Gen IAU | | Speaker Prep | | | | Media | Newspaper | ICMS | | NOC | EC77 EC77/Div Pre | Registration | | | |
| ın 13:3,4 | | | | | | | | | | | | | | | | ASA Counci | Speaker Prep | | | | | Newspaper | | | | | Registration | | | |
| | 0900-1030 S216 1100-1230 S216 | | | | | | | | | | | | | IAU& Off | | | Speaker Prep Speaker Prep | | | | Media Media | Newspaper Newspaper | | | NOC NOC | | Registration Registration | | EXHIBITION EXHIBITION | |
| n 14:3 1 | 1400-1530 S216 1600-1730 S216 | S217 | | | | | S218 S218 | | | | | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep Speaker Prep | | | | Media Media | Newspaper Newspaper | ICMS | NR FC NC | NOC | - COTTO IN THE | Registration Registration | | EXHIBITION EXHIBITION | |
| 1 | 1730-1830 1900-2100 | Public Lecture | НАЗ | | | | 0210 | | | | | nto coma | 17D1 Wiccum | in loca on | CCITIAC | | Ореаксі і тер | | | | Wicdia | Теморарсі | TOMO | Ex/CP | 1100 | | registration | | EXHIBITION | |
| | 0900-1030 S216 | | | C/D LIB | C/D UB | C45 | S218 | | | | | IALL Confid | D/DP Meetin | IAU& Off | Gen IAII | | Speaker Prep | C04 | C15 | C42 | Media | Newspaper | ICMS | IUCAF | NOC | EC77/Div Pre | Registration | C/D LIB | EXHIBITION | |
| e 15:2 1 | 1100-1230 S216 1400-1530 S216 | S217 | C/D UB | C/D UB | C/D UB | C20 | S218 S218 | | | | | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep Speaker Prep | C04 | WGP C15 | WGARG HMPP | Media | Newspaper Newspaper | ICMS | C/D UB C/D UB | NOC | C77/Div Pre | Registration Registration | C/D UB | EXHIBITION EXHIBITION | |
| | 1600-1730 S216 | 5217 | C/D 0B | C/D UB | C/D OB | C29 | 3216 | | | | | IAU Confid | | | Gen IAU | | Speaker Ртер | 621 | C15 | niviPP | iviedia | Newspaper | ICIVIS | C/D UB | NOC | FSC/RC | Registration | C/D UB | EXHIBITION | |
| | | reception at the | | | nou Opera He | | | | | | | | | | | | | | | | | | | | | | Registration | | | |
| | | Ceremony and S217 | | | | | 0040 | IDO | C/D LIB | ID4 | IDE | IAII Confid | D/DD Mostin | IAU& Off | Con IAII | | Spooker Dra | C22 | WGABS | WCARC | Modia | Novemen | ICMS | C/D LIB | NOC | ESC/BC | Registration Registration | C/D LIB | EXHIBITION | |
| 16:2 | 0900-1030 S216 1100-1230 S216 | S217 | JD1 JD1 JD1 | D10 D10 | JD2 JD2 | C08 C08 | S218 S218 | JD3 | C/D UB C/D UB C/D UB | JD4 JD4 JD4 | JD5 | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep | C09 | WGABS | WGARS WGARS | Media | Newspaper Newspaper | ICMS | C/D UB | NOC | FSC/RC | Registration | C/D UB | EXHIBITION | |
| | 1400-1530 S216 1600-1730 S216 | | | D10 D10 | JD2 JD2 | C08 C08 | S218 S218 | JD3 | C/D UB | JD4 JD4 | | | | IAU& Off | | | Speaker Prep Speaker Prep | | CSBN WGCC | WGARS WGARS | Media Media | Newspaper Newspaper | | C/D UB | NOC | | Registration Registration | | EXHIBITION EXHIBITION | |
| d 16.6 1 | 1900-2100 ID 1 HA 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | Registration | | | |
| | 0900-1030 S216 | | | JD6 | JD7 | C15 | S218 | JD8 | C/D UB | JD4 | | | | IAU& Off | | | Speaker Prep | | | WGPSN | | Newspaper | | D01 | NOC | | | | EXHIBITION | |
| r 17:3 1 | 1100-1230 S216 1400-1530 S216 | S217 | JD1 JD13 | JD6 JD6 | JD7 JD7 | C20 JD9 | S218 S218 | JD8 JD8 | C16 | JD4 JD10 | SPS1 | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep Speaker Prep | C07 | WGAM C06 | C/D UB | | Newspaper Newspaper | ICMS | D01 D01 | NOC NOC | FSC/RC | Registration Registration | C/D UB | EXHIBITION EXHIBITION | |
| | 1600-1730 | S217 | | JD6 | JD7 | JD9 | S218 | JD8 | | JD10 | SPS1 | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep | C07 | WGSS | C/D UB | Media | Newspaper | ICMS | D01 | NOC | FSC/RC | Registration | C/D UB | EXHIBITION | |
| | 1900-2100 | Public Lecture | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0900-1030 1100-1230 | JD11 JD11 | JD13 JD13 | C/D UB | | SPS3 SPS3 | JD8 JD8 | JD12 JD12 | D11 D06 | JD10 | | | | IAU& Off | | | Speaker Prep Speaker Prep | | C/D UB C/D UB | D08 D08 | Media Media | Newspaper Newspaper | | C19 C31 | NOC NOC | FSC/RC | Registration | C/D UB | EXHIBITION EXHIBITION | |
| | 1400-1530 1600-1730 | JD11 JD11 | | S218 Wks S218 Wks | | C26 C26 | JD8 JD8 | JD12 JD12 | D06 D06 | JD10 JD10 | | | P/DP Meetin | IAU& Off | Gen IAU Gen IAU | | Speaker Prep Speaker Prep | | C/D UB C/D UB | CSBN C/D UB | Media Media | Newspaper Newspaper | | C19 C19 | NOC NOC | | | | EXHIBITION EXHIBITION | |
| 8:6 1 | 1900-2100 | ID 2 HA | 2 | | | | | | | | | | | | | | | | | | | | | | | | Registration | | | |
| 19:1 | 0900-1030 | | | | | | | JD12 | | | | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep | | | | Media | Newspaper | ICMS | | NOC | FSC/RC | Registration | | EXHIBITION | - |
| | 1100-1230 1400-1530 | | | | | | | JD12 | | | | | | IAU& Off | | | Speaker Prep Speaker Prep | | | | Media Media | Newspaper Newspaper | ICMS | | NOC NOC | | Registration Registration | | EXHIBITION EXHIBITION | |
| 19:4 1 | 1600-1730 | | | | | | | | | | | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep | | | | Media | Newspaper | ICMS | | NOC | FSC/RC | Registration | | EXHIBITION | |
| 20 1 | 1000-1700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | EXHIBITION | |
| | | C/D UB C12 | C05 | D07 | D02 C49 | C51 C51 | | | | | | | | IAU& Off | | ASA AGM | Speaker Prep | | WGOII WGOII | WGAP WGAP | Media Media | Newspaper Newspaper | | C41(a) C41(a) | NOC NOC | | Registration Registration | | EXHIBITION EXHIBITION | |
| 21:3 1 | | C/D UB | | C14 C14 | C27 D09 | D01 D03 | | | | | | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep | C15 | WGPSN | D08 WGSN | | Newspaper Newspaper | ICMS | C41(a) C41(a) | NOC | FSC/RC | Registration | C41(b) | EXHIBITION EXHIBITION | |
| | 1900-2100 | Public Lect | | 011 | 200 | 200 | | | | | | #10 CO.III.G | 1751 Modan | , 10 a o 11 | 00111110 | | орошног г тор | | 000 | 110011 | modia | тто пораро: | | 011(0) | | 1 00/110 | rtogionanon | 011(0) | Ext. III. 1101 | |
| | | S220 | | JD15 | JD14 | D05 | S221 | JD16 | JD17 | | | IALI Confid | P/DP Meetin | IAU& Off | Gen IAII | | Speaker Prep | CAS | C/D LIB | WGCI P | Media | Newspaper | ICMS | C41(a) | NOC | FSC/PC | Registration | C41(b) | EXHIBITION | |
| 22:2 1 | 1100-1230 S219 1400-1530 S219 | S220 | WGFLSF WGFLSF | JD15 | JD14 JD14 JD14 | D05 D05 | S221 S221 | JD16 JD16 | JD17 JD17 JD17 | | | IAU Confid | P/DP Meeting | IAU& Off | Gen IAU | | Speaker Prep Speaker Prep | WGNEO | C/D UB | WGCLP WGCLP C/D UB | Media | Newspaper Newspaper | ICMS | C41(a) C41(a) | NOC NOC | FSC/RC | Registration | C41(b) | EXHIBITION EXHIBITION | |
| | | \$220 \$220 | WGFLSF | | JD14 JD14 | D05 | S221 S221 | JD16 JD16 | JD17 JD17 | | | | | IAU& Off | | | Speaker Prep | | | C/D UB | | Newspaper | | C41(a) | NOC | FSC/RC | Registration | C41(b) | EXHIBITION | |
| 22:6 1 | 1900-2100 | ID 3 HA 2 | : | 1 | 1 | 1 | 1 | | | | | | | | | 1 | | | | | | | | 1 | | | Registration | | | |
| | 0900-1030 S219 | | JD18 | JD21 | JD19 | JD20 | S221 | | | NA | | | | | | | Speaker Prep | | NA | NA | | Newspaper | | C14 | | | Registration | | EXHIBITION | |
| d 23:3 | 1100-1230 S219 1400-1530 S219 | S220 | JD18 JD18 | JD21 JD21 | JD19 JD19 | JD20 JD20 | S221 S221 | | | NA NA | NA | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | VO Group | Speaker Prep | NA | NA NA | NA NA | Media Media | Newspaper Newspaper | ICMS | NR FC NC | | FSC/RC | Registration Registration | C41(b) | EXHIBITION EXHIBITION | |
| 1 23:4 1 | 1600-1730 S219 | S220 | JD18 | JD21 | JD19 | JD20 | S221 | | | NA | NA | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | VO Group | Speaker Prep | N A | N A | N A | Media | Newspaper | ICMS | NR FC NC Ex/CP | NOC | | Registration | | EXHIBITION | |
| | 0900-1030 S219 | | JD18 | | | JD20 | S221 | | | NA | | | | IAU& Off | | | Speaker Prep | | NA | NA | | Newspaper | | | NOC | EC77/Div Pre | Registration | | EXHIBITION | |
| r 24:3 1 | 1100-1230 S219 1400-1530 Sch Visit | S220 HA1 GA 25 S | • | SPS4 | mony in HA2 | JD20 | S221 | | | NA | NA | IAU Confid | P/DP Meetin | IAU& Off | Gen IAU | | Speaker Prep | NA | NA | NA | Media | Newspaper | ICMS | | NOC | EC77/Div Pre | Registration Registration | | EXHIBITION EXHIBITION | |
| | 1600-1730 | | 1 | | , 1111172 | | | | | | | | | | | | | | | | | | | | | | Registration | | EXHIBITION | |
| | | uet in Banquet | Hall | | | | | | | | | | | | | | | | | | | | | | | | | | GA Banquet | |
| 5:2 1 | 0900-1030 S219 1100-1230 S219 | S220 | | SPS4 SPS4 | | | S221 S221 | | | NA NA | NA | IAU Confid | P/DP Meetin P/DP Meetin | IAU& Off | Gen IAU Gen IAU | | Speaker Prep Speaker Prep | NA NA | NA NA | NA NA | Media Media | Newspaper Newspaper | ICMS | <u> </u> | NOC NOC | C78/Div Pre | Registration Registration | | | |
| 25:3 1 | 1400-1530 1600-1730 | S220 | | SPS4 SPS4 | | | S221 S221 | | | NA NA | | | | IAU& Off | | | Speaker Prep Speaker Prep | NA NA | NA NA | NA NA | Media Media | Newspaper Newspaper | ICMS | | NOC NOC | C78/Div Pre | Registration Registration | - | | |
| 26:1 | | | | | | | | | | | | IAU Confid | | | Gen IAU | | | | | | | 1,1,1 | | | | EC78/Div Pre | | | | |
| 26:2 | | | | | | | | | | | | IAU Confid | | | Gen IAU | | | | | | | | *Ex/CPMea | tings 17.30-18 | .30 on 14 lul | EC78/Div Pre | | | | |
| | HA = Harbourside Audi TB = Tumbalong Ballro | | Promenado | = Promenada | registration a | rea | HM-Harbon | ırside Meetin | g Rooms 1-8 | | WGFDGA= D WGP=EC WG | | | nents in Grou | | | y from the Moo | n (DXI) | | NG on Cartogo WG on Optica | | | WGSS=C45 | WG on Stand | lard Stars | | | | | |
| 1 | TA = Tumbalong Baliro TA = Tumbalong Audito Pyr = Pyrmont Room 1- | orium | Sky Tce = | Skyline Terrac enade Meeting | e | | S=Symposiu JD=Joint Dis | um | SPS=Special C=Commissi | | WGABS= DI\ CSBN= Cttee | //DV WG on | Active B stars | | WGPSN= D | III WG for Pla | netary system r Physics (C42) | nomenclatur | WGSN=DVII | II WG on Supe | ernovae | | WGNEO=D | I/DIII WG on National Meeting on F | lear Earth Ob | jects | ration | | | |
| | Pyr = Pyrmont Room 1- TM = Tumbalong Meeti | | | | | | | | D=Division | UII | WGARG = W | | | | | | Related Stars | | | | | | | nt WG Meeting | | | | Plates | | |

Annex 10 IAU General Assembly Sydney 13-26 July 2003





EXHIBITOR LISTING

ASTRO EXPO EXHIBITORS ALPHABETICALLY

| ALMA | Stand G38 |
|--|----------------------|
| American Astronomical Society | Stand G04 |
| Amateur Astronomers | Stand G02A |
| Anglo-Australian Observatory | Stand G08A |
| Ask an Astronomer | Stand G01B |
| Astrodomes | Stand TT01 |
| Astronomical Consultants & Equipment Inc. | Stand G36 |
| Astronomical Society of Australia | Stand G12 |
| ATNF | Stand G08B |
| Australian Antarctic Division | Stand G29 |
| Australian Centre for Precision Optics, CSIRO | Stand G07 |
| Australian SKA Consortium | Stand G19 |
| Blackwell Publishing | Stand TT02 |
| CDS | Stand G26 |
| Connell Wagner | Stand G28 |
| Coonabarabran Shire Council | Stand P14 |
| CSIRO | Stand G02 |
| DA Information Services | Stand G37 |
| EDP Sciences | Stand G02B |
| EOS & EOST | Stand G05 |
| ESO, European Southern Observatory | Stand G16 & G17 |
| European Southern Observatory | Stand G23, G24 & G25 |
| Gemini Observatory | Stand G09 |
| IAU XXVIth General Assembly, Prague 2006 | Stand G31 |
| IPAC / Caltech | Stand G06 |
| James Webb Space Telescope | Stand G32 |
| Kluwer Academic Publishers | Stand G11 |
| LOFAR: The Low Frequency Array | Stand G15 |
| National Astronomical Observatory of Japan | Stand G22 |
| NewScientist Magazine | Stand TT03 |
| Research School of Astronomy & Astrophysics, ANU | Stand G13 |
| SKA: International SKA Secretariat | Stand G20 |
| SKA South Africa | Stand G21 |
| SOFIA/USRA | Stand G03 |
| Starlab | Stand G08 |
| Sydney Observatory/Powerhouse Museum | Stand P10A |
| Telescope Technologies Limited (TTL) | Stand G14 |
| The Australian Antarctic Division | Stand G29 |
| The Australian Gemini Office | Stand G10 |
| University of Sydney | Stand G18 |
| | |

DEST TECHNOLOGY AUSTRALIA PAVILION EXHIBITORS ALPHABETICALLY

| Auspace | Stand P15A |
|---|------------|
| Australian Photonics Pty Ltd | Stand P15B |
| Australian SKA Consortium | Stand G19 |
| Swinburne University Centre for Astrophysics and Supercomputing | Stand P10B |
| Connell Wagner Pty Ltd | Stand G28 |
| Laser Micromachining | Stand P12 |
| Research School of Astronomy & Astrophysics, ANU | Stand G13 |
| The Australian Gemini Office | Stand G10 |
| University of New South Wales | Stand G29 |
| University of Sydney | Stand G18 |

ASTRO EXHIBITORS BY STAND NUMBER

G01B Ask an Astronomer

G02 CSIRO

G02A Amateur Astronomers

G02B EDP Sciences G03 SOFIA/USRA

G04 American Astronomical Society

G05 EOS & EOST IPAC/Caltech

G07 Australian Centre for Precision Optics, CSIRO

G08 Starlab

G08A Anglo-Australian Observatory

G08B ATNF

G09 Gemini Observatory

The Australian Gemini Office G10 Kluwer Academic Publishers G11 Astronomical Society of Australia G12 Telescope Technologies Limited (TTL) G14 G15 LOFAR: The Low Frequency Array ESO, European Southern Observatory G16 ESO, European Southern Observatory G17 G20 SKA: International SKA Secretariat

G21 SKA South Africa

G22 National Astronomical Observatory of Japan

G23 European Southern Observatory G24 European Southern Observatory G25 European Southern Observatory

G26 CDS G27 IAU

G28 Connell Wagner Pty Ltd G29 Australian Antarctic Division

G31 IAU XXVIth General Assembly, Prague 2006

G32 James Webb Space Telescope

G36 Astronomical Consultants & Equipment Inc.

D37 DA Information Services

G38 ALMA

P10A Sydney Observatory/Powerhouse Museum

P14 Coonabarabran Shire Council

TT01 Atrodomes

TT02 Blackwell Publishing
TT03 NewScientist Magazine

DEST TECHNOLOGY AUSTRALIA PAVILION EXHIBITORS BY STAND NUMBER

Stand G10 The Australian Gemini Office

Stand G13 Research School of Astronomy & Astrophysics, ANU

Stand G18 University of Sydney
Stand G19 Australian SKA Consortium
Stand G28 Connell Wagner Pty Ltd
Stand G29 University of New South Wales

Stand P10B Swinburne University Centre for Astrophysics and Supercomputing

Stand P12 Laser Micromachining

P15A Auspace

P15B Australian Photonics Pty Ltd

ASTRO EXPO EXHIBITOR LISTING

ALMA

Stand G38

Web: http://www.eso.org/projects/alma/administration/ or http://www.eso.org/projects/alma/administration/ or http://www.eso.org/proje

The Atacama Large Millimeter Array (ALMA) is an international collaboration between Europe and the North America to build a synthesis radio telescope to operate at millimeter and submillimeter wavelengths. Japan may become a partner, making a truly global collaboration. ALMA will be the largest ground-based astronomy project after VLT/VLTI, and, together with the James Webb Space Telescope (JWST), one of the two major new facilities for world astronomy coming into operation within the next decade.

Comprised of 64 12-meter sub-millimeter quality antennas, ALMA's baselines will extend to 16 km, located on the high-altitude Chajnantor site in Chile. Its receivers will cover the range from 30 to 950 GHz. This is an exceptional site for (sub) millimeter astronomy, possibly unique in the world.

American Astronomical Society Stand G04

Suite 400, 2000 Florida Avenue, NW Washington DC 20009 USA

Tel: +1 202 328 2010 Fax: +1 202 234 2560 Email: <u>aas@aas.org</u>

The American Astronomical Society is the major organization of professional astronomers in the United States, Canada and Mexico. The basic objective of the AAS is to promote the advancement of astronomy and closely related branches of science. The membership, now at approximately 6500, includes physicists, mathematicians, geologists, engineers and other related scientists. The Society publishes the major research journals in the field including the Astrophysical Journal (Letters and Supplements) and the Astronomical Journal. Membership is open to professionals worldwide who are endorsed by two current full members. Full details at www.aas.org

Amateur Astronomers Stand G02A

Astronomy is the one area of science where amateurs can make a serious contribution to science, and where many people can enjoy the splendours of the universe, using private, and in some cases, very expensive, personal equipment for their own pleasure. Astronomy captures the imagination of members of the general public, evidenced by the large numbers of people who visit observatories, planetariums and public open nights around the world. Many amateur astronomers join astronomy clubs or astronomical societies to further their hobby, meet and learn from other experienced amateurs, attend lectures by professionals and use society owned equipment and observing sites with fellow amateurs.

Most astronomy clubs organize regular meetings (often with guest speakers), produce regular journals or newsletters, and organize group observing sessions. Some clubs have their own observatory or observing sites or regularly use public or private observatories. Clubs often organize viewing nights for the public and some clubs run public astronomy education programs.

Information on amateur astronomy clubs in Australia can be found at the www.ozastro.org web page.

Anglo-Australian Observatory Stand G08A

The Anglo-Australian Observatory provides world-class optical and infrared observing facilities for British and Australian astronomers.

The Anglo-Australian Telescope Board is an independent, bi-national authority funded equally by the Governments of Australia and the United Kingdom. The Board's facilities consist of the 3.9-m Anglo-Australian Telescope (AAT) - the largest optical telescope in Australia - and the 1.2-m UK Schmidt Telescope. Both are located at Siding Spring Observatory near Coonabarabran, NSW. The headquarters of the Anglo-Australian Observatory are in the Sydney suburb of Eastwood.

The AAO builds instrumentation for both its own telescopes and for leading facilities around the world, such as the European Southern Observatory's Very Large Telescope, Japan's Subaru telescope and the Gemini Observatory. It has become a world leader in the development of optical fibre systems for astronomy.

Ask an Astronomer Stand G01B

Members of the public often have questions that they would like to ask: 'What is a black hole and where do you find them?', What happened during the Big Bang?', 'Why does the Sun shine and will it ever stop shining?', 'Where do the stars go during the day?' And many more. This is a unique opportunity for people to find out what they always wanted to know, but were unable to ask. The desk is staffed by professional astronomers and astronomy students from 11 am to 3 pm Friday to Sunday and 12 noon to 3 pm on Monday.

Astrodomes Stand TT01

PO Box 52 Yandina QLD 4561 Australia

Tel: +61 7 5446 7449 Fax: +61 7 5446 8544 Email: col@astrodomes.com Web: www.astrodomes.com

Astrodomes manufacture state of the art observatories. With Astrodomes spherical shape and mouldings for strength, they are aesthetically pleasing and almost sculptural in appeal. Astrodomes are robust, providing protection and security for your equipment, making for a complete observatory. The shutter is powered by batteries fixed to the dome, so that it can be operated at any time. The batteries can be recharged by solar cells each day. The dome rotation apparatus is best mains powered. Shutter movement and dome rotation uses module number 3 rack and pinion working a unique wheel arrangement, making for quiet operation. All operations can be controlled remotely.

Astronomical Consultants & Equipment Inc. Stand G36

P.O. Box 91946 Tucson AZ 85752-1946 USA

Tel: + 1 520 219 8722 Fax: +1 520 219 7989

Web: www.astronomical.com

Astronomical Society of Australia Stand G12

University of New South Wales Sydney NSW 2052 Australia

Tel: +61 2 9385 5662 Fax: +61 2 9385 6060

Web: http://www.astronomy.org.au

The Astronomical Society of Australia (ASA) was formed in 1966 as the organisation for professional astronomers in Australia. The ASA, together with the National Council for Astronomy, is hosting the IAU General Assembly. Membership of the ASA is open to people capable of contributing to the advancement of astronomy or a closely related field. The Society currently has around 350 members, including active professional astronomers, postgraduate students, retired astronomers, distinguished amateur astronomers and corporations. The Society publishes an ISI-listed, fully refereed journal for new and significant research in astrophysics, known as *PASA*. With a strongly international author base, *PASA* maintains a focus on areas of research relevant to Australian astronomy. From 2002, PASA has moved to exclusive online production. *PASA*'s speed of publication, plus wide distribution, offer significant advantages for authors, readers and subscribers.

Visit this stand for information on the ASA and PASA. A computer will be connected to the internet to browse the PASA website (http://www.astronomy.org.au), plus free sample CDs with PASA papers will be distributed.

ATNF Stand G08B

PO Box 76 Epping NSW 1710

Australia

Tel: +61 2 9372 4100 Fax: +61 2 9372 4310 Email: <u>Helen.Sim@csiro.au</u> Web: <u>www.atnf.csiro.au</u>

The Australia Telescope National Facility (ATNF) is a division of CSIRO, Australia's largest research organisation, and is one of the world's leading radio observatories. It operates the Australia Telescope, a set of eight individual radio telescopes, as a national research facility for use by Australian and international researchers. Six of the telescopes make up the Australia Telescope Compact Array (ATCA), located at the Paul Wild Observatory near the town of Narrabri. Each of these antennas has a reflecting surface with a diameter of 22 metres. New cutting-edge receivers have made the Compact Array the first millimetre-wave synthesis telescope in the Southern Hemisphere, enabling astronomers to observe the richest part of the Galactic Plane and the nearest star-forming galaxies, the Magellanic Clouds, in unprecedented detail.

The Australia Telescope also includes another 22-metre antenna, known as the Mopra telescope, which is located near Coonabarabran, NSW, and the Parkes 64-metre radio telescope, near the town of Parkes, NSW. The Parkes telescope has been successfully operated since 1961. Recent upgrades to accommodate a 13-beam focal plane array have maintained its world-class position as a state-of-the-art instrument.

Australian Centre for Precision Optics, CSIRO Stand G07

CSIRO, Division of Telecommunications & Industrial Physics: PO Box 218 Bradfield Road Lindfield NSW 2070 Australia

Tel: +61 2 9413 7200 Fax: +61 2 9413 7200 Email: acpo@tip.csiro.au

Web: http://www.tip.csiro.au/IMP/Optical/index.htm

"Supply of precision custom optics in a range of materials, including glass, ceramics, crystals and metals. Products include super-polished flats and long radii surfaces to lambda/500, precision spheres to 30nm asphericity, cube corners, beam-splitters, LiNbO3 etalon tuneable narrow band filters, multi-layer dielectric and metal coatings, photonics components. Facilities include fabrication, metrology and coatings. New products include super polishing of sapphire and surface figuring by ion beam etching and selective coating."

CDS Stand G26

Observatoire Astronomique 11 rue de l'Universite Strasburg 67000 France

Tel: +33 390 242 476 Fax: +33 390 242 439

Email: question@simbad.u-strasbg.fr
Web: http://cdsweb.u-strasbg.fr

Centre de Données astronomiques de Strasbourg (CDS)

The Strasbourg astronomy Data Center (CDS) develops reference services (SIMBAD, VizieR, Aladin) which are widely used by the world-wide astronomy community. The CDS services act as a hub towards other on-line services such as observatory archives, the ADS and electronic journals. The new functionalities of the services will be displayed. CDS also actively participates in the international VO projects (on display at the IVOA booth), in particular it is a member of the Astrophysical Virtual Observatory team. http://cdsweb.u-strasbg.fr/ question@simbad.u-strasbg.fr

Blackwell Publishing Stand TT02

Coonabarabran Shire Council Stand P14

PO Box 191 Coonabarabran NSW 2357

Australia

Tel: +61 2 6842 4932 Fax: +61 2 6842 4932

Web: www.coonabarabran.com

Conabarabran is the 'Astronomy Capital of Australia'. With 70 per cent of night skies clear and the Galactic Centre of the Milky Way hovering overhead, astronomers from all over Australia, and the world, anxiously await their turn at Siding Spring Observatory, atop the magnificent Warrumbungle ranges. The nine telescopes on the premises include the largest optical telescope in Australia, the 3.9 m Anglo-Australian telescope, world famous for its quality of optics and technology. Skywatch Observatory, open to the public every night for guided telescope viewing and Siding Spring Observatory are the most accessible optical observatories in Australia and promise the total astronomical experience. This display will include information about the many attractions, galleries, restaurants, accommodation and encounters available in the area. Delegates can have their photo taken with Dr Fred Watson, Astronomer in Charge of the Anglo Australian Observatory at Siding Spring. Also on display will be some world-famous astronomical photographs taken from Siding Spring by David Malin. www.coonabarabran.com

CSIRO Stand G02

CSIRO Enquiries Bag 10 Clayton South VIC 3169 Australia

Tel: +61 3 9545 2176 Fax: +61 3 9545 2175 Email: enquiries@csiro.au Web: http://www.csiro.au

Australia's CSIRO is one of the world's largest and most diverse global scientific research organisations, employing over 6300 staff distributed amongst 20 research divisions throughout Australia, and overseas. CSIRO conducts strategic research, contract R&D, consultancy and specialised testing services, and licensing and exploitation of IP. We serve a wide range of industry sectors - Agribusiness, Energy and Transport, Environment and Natural Resources, Information, Communication and Services, Manufacturing, Mineral Resources, and Health. Using the depth and breadth of our R&D capabilities, we aim to provide new ways to improve the quality of life, and the economic and social performance of industry.

DA Information Services Stand G37

648 Whitehorse Road Mitcham VIC 3132 Australia

Tel: +61 3 9210 7777 Fax: +61 3 9210 7788

Email: service@dadirect.com.au
Web: www.dadirect.com

DA Information Services is a leading distributor of academic, technical and professional books, serials and electronic media products. DA supplies the resource needs of libraries, departments, companies and individuals throughout Australia, New Zealand and Papua New Guinea. Any book you need from any publisher worldwide and what you can't find we will find for you.

Visit us at stand G37 to browse through a vast range of titles and purchase at the best prices or log onto DA's online bookshop at www.dadirect.com.

EDP Sciences Stand G02B

17 AVENUE DU HOGGAR BP 112, 91944 LES ULIS

FRANCE

Tel: +33 (0) 1 69 18 75 75 Fax: +33 (0) 1 69 28 84 91

Email: marketing@edpsciences.org

Web: www.edpsciences.org

EDP Sciences publishes scientific texts in the form of journals, books and web-sites. Closely linked to the scientific world, it contributes to the communication and the diffusion of Science to specialized and non-specialized audiences. The editorial work of the company covers the fields of astrophysics, theoretical and applied physics, materials, chemistry, life sciences, mathematics as well as cross-disciplinary fields. It offers its authors and readers a specialized editorial platform whose choices and quality are guaranteed by a scientific editorial committee

Its main international journal "Astronomy & Astrophysics", publishes papers on all aspects of astronomy and astrophysics: theoretical, observational and instrumental, independently of the techniques used to obtain the results.

EOS & EOST Stand GO5

925 West Grant Road Tuscon Arizona 85705

Tel: +1 520 624 6399 Fax: +1 520 624 1906

Electro Optic Systems (EOS) and EOS Technologies (EOST) are part of the EOS Group of companies. Based in Canberra, Australia and Tucson, Arizona they provide turnkey observatory systems for astronomy and satellite laser ranging. Systems include telescopes and instruments, enclosures, integrated control systems and software (including remote and autonomous operation), plus site works, installation and commissioning services. Telescopes from 0.75 meters to 2.0 meters have been designed, built and commissioned by the group. Designs for 3 to 6 meter class telescopes and observatories are currently in development.

ESO, European Southern Observatory Stands G16 & G17

Karl-Schwarzshild-Str.2 D-85748 Garching b. Muenchen Germany

Tel: +49 (0) 893 200 60 Fax: +49 (0) 893 202 362

Email: ips@eso.org

Web: http://www.eso.org/

ESO is the intergovernmental European research organisation for Astronomy. It is supported by Belgium, Denmark, France, Germany, Italy, the Netherlands, Portugal, Sweden, Switzerland and the United Kingdom. More countries are expected to join during the next years. ESO operates observational facilities at two sites in northern Chile: The Paranal Observatory with the world's prime optical/infrared astronomical facility, the Very Large Telescope Array (VLT). At the La Silla Observatory state-of-the-art medium-sized telescopes are in operation. More than 1300 proposals are made each year for the use of the ESO telescopes.

ESO is the European partner in the Atacama Large Millimetre Array (ALMA) project of 64 12-m telescopes for observation in the mm/sub-mm wavelength domain. Furthermore, conceptual studies for a 100-m optical telescope, OWL, are being undertaken by ESO.

European Southern Observatory Stands G23, G24 &G25

IVOA c/o ESO Karl-Schwarzschild-Str. 2 85748 Garching Germany

Tel.: +49 89 3200 6448 Fax: +49 89 3200 6480 Email: mpeltzer@ivoa.net Web: http://www.ivoa.net

The Virtual Observatory will be a system that allows astronomers to interrogate data centres in a seamless and transparent way, which provides new powerful analysis tools within that system, and which gives data centres a standard framework for publishing and delivering services using their data. This is made possible by standardisation of data, by standardisation of data exchange methods, and by the use of service registries. The International Virtual Observatory Alliance (IVOA) was formed in June 2002 to facilitate the international coordination and collaboration necessary to enable the international utilisation of astronomical archives as an integrated and interoperating Virtual Observatory. (http://www.ivoa.net)

Gemini Observatory Stand G09

Northern Operations Center 670 N. A'ohoku Place Hilo, Hawaii 96720 USA

Tel: + 1 (808) 974-2500 Fax: + 1 (808) 935-9235

Email: pmichaud@gemini.edu or jaking@gemini,edu

Web: http://www.gemini.edu

The Gemini Observatory is an international collaboration that has built two identical 8-meter telescopes. The Frederick C. Gillett Gemini Telescope is located on Mauna Kea, Hawai'i (Gemini North) and the other telescope on Cerro Pachón in central Chile (Gemini South), and hence provide full coverage of both hemispheres of the sky. Both telescopes incorporate new technologies that allow large, relatively thin mirrors under active control to collect and focus both optical and infrared radiation with unprecedented resolution.

The Gemini Observatory provides the astronomical communities in each partner country with state-of-the-art astronomical facilities that allocate observing time in proportion to each country's contribution. In addition to financial support, each country also contributes significant scientific and technical resources. The national research agencies that form the Gemini partnership include: the US National Science Foundation (NSF), the UK Particle Physics and Astronomy Research Council (PPARC), the Canadian National Research Council (NRC), the Chilean Comisión Nacional de Investigación Científica y Tecnológica (CONICYT), the Australian Research Council (ARC), the Argentinean Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) and the Brazilian Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq). The Observatory is managed by the Association of Universities for Research in Astronomy, Inc. (AURA) under a cooperative agreement with the NSF. The NSF also serves as the executive agency for the international partnership.

IAU XXVIth General Assembly, Prague 2006 Stand G31

C/o CBT Astro 2006 Ltd. Lidická 43/66 150 00 Prague 5

Tel: + 420 224 942 575 579 Fax: + 420 224 942 550 Email: <u>astro2006@cbttravel.cz</u> Web: <u>www.astronomy2006.com</u>

The XXVIth General Assembly of the International Astronomical Union (IAU) will be held in Prague, the Czech Republic, a city with a rich astronomical history dating back to the middle of the XIVth century, when the oldest central European university was established there.

All details for planning your trip to Prague can be found on the web site: www.astronomy2006.com

IPAC/Caltech Stand G06 IPAC/Caltech Mailcode 100-22,

Pasadena, CA 91125

USA

Tel: +1 626 397 7777 Fax: +1 626 397 7018

Email: outreach@ipac.caltech.edu

The Infrared Processing and Analysis Center (IPAC) at the California Institute of Technology is NASA's multimission center of expertise for infrared and submillimeter astrophysics. IPAC carries out large-scale scientific data processing tasks of vital importance to NASA's astronomy programs, develops and maintains data archives with access and analysis tools, offers scientific expertise on various projects to scientific investigators, and conducts education and outreach efforts aimed at the general public. Active missions and services include 2MASS, GALEX, the Keck Interferometer, as well as IRSA and NED.

Future missions include SIRTF, Herschel, SIM, WISE, and TPF. http://www.ipac.caltech.edu

James Webb Space Telescope Stand G32

James Webb Space Telescope 3700 San Martin Dr. Baltimore MD 21218 USA

Tel: + 1 (410) 338 4362 Fax: + 1 (410) 338 4579 Email: <u>dejong@stsci.edu</u>

Web: http://www.stsci.edu/jwst/

The James Webb Space Telescope (JWST), a new infra-red and spectrographic observatory is being designed by scientists and engineers to shed light on many astronomical mysteries. JWST will be more powerful than any telescope ever built; it will allow us to see even farther into space and time.

JWST will give us detailed pictures of very distant galaxies that formed when the universe was a fraction of its present age. JWST will also study objects that may provide clues about how solar systems and planets formed. JWST has an expected launch date of 2010, and will succeed the Hubble Space Telescope.

Kluwer Academic Publishers Stand G11

PO Box 989 3300 AZ Dordrecht The Netherlands

Tel: +31 (0) 78 657 60 00 Fax: +31(0) 78 657 62 54 Email: <u>services@wkap.nl</u> Web: <u>http://www.wkap.com</u>

Kluwer Academic Publishers is a leading publisher of scientific information, specializing in numerous fields within Science, Technology, Medicine, Humanities and Social Sciences. Located in Dordrecht, Boston, New York and London, Kluwer provides high quality online products and services, academic journals and books, featuring leading authors and researchers from around the world.

LOFAR: The Low Frequency Array Stand G15

LOFAR will be a major new multi-element, interferometric, imaging telescope designed for the 10-240MHz frequency range. The revolutionary design of LOFAR promises to provide observers with extraordinary capabilities including far higher resolution and sensitivity than any existing low-frequency telescope, the reliability of a telescope containing no moving parts and extreme agility in frequency and pointing via software and digital hardware...

And that's just for starters. Visit this stand for a display of LOFAR's capabilities and to find out more.

National Astronomical Observatory of Japan Stand G22

2-21-1 Osawa Mitaka Tokyo 181-8588 Japan

Tel: +81 422 343 600

Fax: +81b422 343 690 Email: webmaster@nao.ac.jp Web: http://www.nao.ac.jp/

As the center of astronomical researches in Japan, the National Astronomical Observatory of Japan (NAOJ) promotes a wide range of observational and theoretical researches and technical developments on astronomy, astrophysics, and related fields. NAOJ also promotes joint researches and open use of observatory facilities (such as Subaru, VERA, and, in the near future ALMA as well) and equipments by foreign and domestic researchers, in addition to supporting the cultivation of young researchers and graduate-level students.

NewScientist Magazine Stand TT03

NewScientist is the world's leading news weekly reporting on the latest developments in science and technology and its impact on the way we live. Winner of more than 40 awards for editorial excellence, no other magazine offers the same diverse coverage of science and technology news.

Every week, NewScientist distills the key developments and reports them in an accessible way, highlighting the implications for industry, politics, the economy, individuals and the environment.

It is essential reading for people who want to know what's happening, why and how it will affect the world around them.

SKA: International SKA Secretariat Stand G20

International Square Kilometre Array Consortium Square Kilometre Array ASTRON Postbus 2, 7990 AA Dwingeloo The Netherlands

Tel: +31 (0) 521 595 270 Fax: +31 (0) 521 597 332 Web: <u>www.skatelescope.org</u>

New developments in all fields of astronomy have brought the current generation of astronomers to the brink of probing the origin and evolution of the Universe. To attack these questions directly, a new generation of astronomical facilities is needed with a revolutionary new instrument at radio wavelengths playing a critical role. A radio telescope with an effective collecting area more than 30 times greater than the largest telescope ever built will reveal the dawn of galaxy formation, as well as many other new discoveries in all fields of astronomy. A consortium of 35 institutes in 15 countries is engaged in a cooperative research and development program to solve the technical challenges required to build the Square Kilometre Array - a giant radio telescope with a collecting area of one square kilometre.

SKA South Africa Stand G21

PO Box 2600 Pretoria 0001 South Africa

Tel: +27 12 481 4000 Fax: +27 12 481 4134 Email: marina@ska.ac.za Web: www.ska.ac.za

South Africa has offered to host the biggest radio telescope ever – the Square Kilometre Array, or SKA. South Africa would be the ideal site for the core element of the SKA owing to its location, as well as the capabilities and record of accomplishment to host, support, and contribute to the science that will be generated by this giant radio telescope.

The SKA will be an important addition to a developing network of cutting-edge astronomy projects in Southern African, which includes the Southern African Large Telescope (SALT) at Sutherland in the Northern Cape and the High Energy Stereoscopic System (HESS) gamma ray observatory in neighbouring Namibia.

SOFIA/USRA Stand G03

NASA/Ames Research Center

M/S 144-2 Moffett Field CA 94035-1000 USA

Tel: + 650 604 2125 Fax: +650 604 1984

Email: lwolber@mail.arc.nasa.gov Web: http://sofia.nasa.gov

In a unique cooperative program, NASA, the German Aerospace Center (DLR) and an international contractor team are working together to create SOFIA - a 2.5-meter (98.5-inch)-diameter reflecting telescope mounted in a modified Boeing 747SP. SOFIA will be the largest airborne telescope in the world, making observations that are impossible for even the largest, highest ground-based infrared telescopes. The contractor team, lead by the Universities Space Research Association (USRA), is responsible for developing and subsequently operating the observatory for NASA.

USRA will base SOFIA operations at NASA's Ames Research Center at Moffett Federal Airfield near Mountain View, California. With an expected operating lifetime of 20 years or more, it is scheduled to begin science operations in late 2004.

Sydney Observatory/Powerhouse Museum Stand P10A

Sydney Observatory, Australia' oldest existing observatory, is a museum of astronomy and a public observatory. It is part of a large museum, the Powerhouse Museum, which is a few minutes walk from the Convention Centre. At the Astro Expo the Observatory is showing the Astronomy Powerpack: Sydney Observatory on Tour. This is a kit of astronomy education materials that will be sent to schools in country areas of the state. The exhibit also has some Observatory publications available such as the Sydney Observatory 2003 Sky Guide and Observer and Observed: a pictorial history of Sydney Observatory and Observatory Hill.

Telescope Technologies Limited (TTL) Stand G14

1`Morpeth Wharf Birkenhead, Merseyside CH41 1NQ United Kingdom

Tel: +44 (0) 151 650 3100 Fax: +44 (0) 151 650 3113 Email: <u>info@ngat.com</u> Website: <u>www.ngat.com</u>

Telescope Technologies Limited (TTL) specialises in the design and manufacture of fully automated telescopes, for robotic or conventional operation. All telescopes are state-of-the-art systems. The telescope control system includes effective compensation for the effects of wind buffeting, allowing the telescopes to operate outside a conventional enclosure. Dynamic scheduling software provides unprecedented flexibility and efficiency in robotic operation.

Currently TTL are manufacturing and installing 2m telescopes for sites on La Palma; Maui, Hawaii; Pune, India; Siding Springs, Australia; and a 2.4m telescope for the Yunnan Astronomical Observatory, China, which, when installed in 2004, will be the largest telescope in Asia.

The Australian Antarctic Division Stand G29

Dr Marc Duldig Program Leader, Space and Atmospheric Sciences Australian Antarctic Division Channel Highway Kingston TAS 7050 Australia

Tel: +61 3 6232 3333 Fax: +61 3 6232 3496

Web: http://www.aad.gov.au/

The Australian Antarctic Division, within the Commonwealth Department of the Department of the Environment and Heritage, administers Australia's wide-ranging activities in the Antarctic and subantarctic regions.

These activities include research into 'Space Weather', the effects of the near earth environment on technological systems in space and on the ground. This is achieved through cosmic ray and geophysical observations from the Antarctic continent and Macquarie Island.

The Division provides most of the shipping transport infrastructure between Australia and Antarctica for the Australian program and is preparing to establish intra and intercontinental air transport in the next few years. This will assist Australian astronomers in accessing the best astronomical sites on the Antarctic plateau, for example at the French/Italian station at Dome C or the highest point on Dome A

DEST TECHNOLOGY AUSTRALIA PAVILION AT ASTRO EXPO LISTING

The showcasing element of Astro Expo at the IAU GA 2003 is supported by the Innovation Access Program, which is an initiative of Backing Australia's Ability.

Funding is provided jointly by the Department of Education, Science and Training (DEST) and the Department of Industry, Tourism and Resources (DITR.

Auspace Stand P15A

Contact: Nicola Porecki, Business Development Manager

PO Box 17 Mitchell ACT 2911 Australia

Tel: +61 2 6242 2611

Fax: +61 2

Email: <u>nicolap@auspace.com.au</u>
Web: <u>www.auspace.com.au</u>

Auspace Limited is an Australian aerospace and systems engineering company with capabilities spanning electro-optic instruments, satellite communications systems and space systems.

Auspace has a proven capability in providing electro-optic instruments for ground and space based, astronomical and remote sensing applications. As a wholly owned subsidiary of EADS Astrium, Auspace is supported in all its activities by the technology and strength of Europe's leading satellite manufacturer.

Based in Canberra and Adelaide, Auspace has Class 100 cleanroom facilities with electronics laboratory, thermal vacuum chambers and other specialist equipment available to support the design and build of electro-optic instruments.

Australian Photonics Pty Ltd Stand P15B

Contact: Dr Chris Scott, General Manager Suite 201, National Innovation Centre

Australian Technology Park Eveleigh NSW 1430

Australia

Tel: +61 2 9209 4868 Fax: +61 2 9209 4795

Email: c.scott@photonics.com.au
Web: http://www.photonics.com.au

Australian Photonics is an unincorporated joint venture of 5 Australian Universities, TAFE, DSTO, and 21 industry partners with key objectives including:

- Undertaking world class research
- Commercialisation of outcomes
- Education and Training

Australian Photonics develops technologies for next generation systems, subsystems, and components for sensors and communications networks. Our core skills and capabilities are centred around technologies of:

- novel photonic materials,
- optical fibre,
- planar integrated circuits,
- automated manufacturing,
- information processing

We apply our capabilities and technologies to opportunities in a range of industries.

We work closely with our industry partners to help them achieve market leadership through the strategic application of photonic technologies. We provide a one-stop-shop for linkages in research, education and training, and investment opportunities in photonics.

Australian SKA Consortium Stand G19

Australian Square Kilometre Array Consortium Contact: Dr Peter Hall, Executive Secretary PO Box 76 Epping NSW 1710 Australia

Tel: +61 2 9372 4195
Fax: +61 2 9372 4167
Email: peter.hall@csiro.au
Web: http://askac.atnf.csiro.au/

The Square Kilometre Array (SKA) radio telescope is being designed by an international consortium of eleven countries and will be built in about 10 years time. It will be 100 times as sensitive as the best current instruments and will enable astronomers to observe the first structures to form in the Universe and answer fundamental questions about how the Universe evolved.

The Australian SKA Consortium (ASKAC) coordinates SKA-related research in Australia. With its vast area and low background radio-frequency levels, Australia is an ideal host site for the SKA. The display will show examples of the initial site selection work and SKA science, as well as new SKA technologies, including a working model of a multi-beam antenna being developed by CSIRO.

Swinburne University Centre for Astrophysics and Supercomputing Stand P10B

Contact: Matthew Bailes

Swinburne University of Technology

Mail 31 PO Box 218 Hawthorn Vic 3122

Australia

Tel: +61 3 9214 8782 Fax: +61 3 9214 8797 E-mail: mbailes@swin.edu.au

Web: http://www.astronomy.swin.edu.au

The Centre for Astrophysics and Supercomputing at Swinburne University of Technology is dedicated to the pursuit of fundamental astronomical research and the public appreciation of science.

The Centre's facilties include a Top 500-ranked supercomputer and a virtual reality theatre. Key educational programs include Swinburne Astronomy Online and AstroTour.

At Astro Expo, the Centre will be demonstrating its 3D projection system, ideal for scientific visualisation and public education. Come and talk to us about purchasing your own 3D theatre or see how we can help with your visualisation needs. Sample content from Swinburne Astronomy Online internet courses will also be available.

Connell Wagner Pty Ltd Stand G28

Contact: Rick Hopkins, Project Manager Level 2, 116 Military Road

Neutral Bay NSW 2089 Australia

Tel: +61 2 9465 5753 Fax: +61 2 9465 5786

E-mail: hopkinsr@conwag.com Web: <u>www.connellwagner.com.au</u>

Leading international consulting firm Connell Wagner specialises in planning, engineering and managing infrastructure, energy, commercial and industrial projects. The company has long been involved with the CSIRO on such projects as the Parkes Radio Telescope upgrade and the Australia Telescope at Narrabri. Currently, Connell Wagner is collaborating with the CSIRO on the bid for the SKA project, contributing to the prototyping of potential antenna technology – a spherical lens antenna (Luneberg lens) made from new synthetic materials.

Connell Wagner has assisted in the development of the feed arm electro-mechanical operation for the prototype. The firm has more than 1800 staff in Australia, New Zealand and South East Asia, and has associated companies throughout the world. Connell Wagner offers local knowledge, international service and world-class expertise. Connell Wagner is a proud sponsor of the IAU General Assembly, as well as the Industry Day. www.connellwagner.com.au/

Laser Micromachining Stand P12

Contact: Linda Kerr Division ICS Innovation Incubator Centre Macquaurie University, NSW 2109

Australia

Tel: +61 2 9850 9101 Fax: +61 2 98509102 Email: lkerr@ics.mq.edu.au Web: http://www.mso.anu.edu.au

Macquarie University Technical Services has provided custom solutions to mechanical and electronic challenges associated with leading edge scientific research for the past thirty years. Two hundred man years of expertise and experience are available to our customers. Ceramics to composites, platinum to titanium, telescopes to microscopes. Contact us for solutions.

Laser Micromachining Solutions (LMS) is a commercial venture of the Centre for Lasers and Applications, Macquarie University, undertaking strategic research and developing advanced laser micro-machining and microstructuring techniques. These techniques have been used to process features less than 10microns in size in metals, ceramics, polymers, glasses and crystalline materials, for a range of scientific applications.

Research School of Astronomy & Astrophysics, ANU Stand G13

Contact: Dr Paul Francis

Research School of Astronomy and Astrophysics, The Australian National University

Mt Stromlo Observatory, Cotter Road

Weston ACT 2611

Australia

Tel: +61 2 6125 0230 Fax: +61 2 6125 0233

Email: paul.francis@mso.anu.edu.au.
Web: http://www.mso.anu.edu.au

The Australian National University's Research School of Astronomy and Astrophysics is Australia's premier university research group in this field. With 23 academic staff, we are the largest research group in Australia, covering field as diverse as cosmology, stellar evolution and planetary science. We run Australia's two major optical observatories: Mt Stromlo Observatory (our home base, located near Canberra) and Siding Spring Observatory (our dark sky site, located in the Western Plains of New South Wales, near the town of Coonabarabran). We have an active instrumentation program, currently building two instruments for Gemini, as well as expertise in theoretical and computational astrophysics.

The Australian Gemini Office Stand G10

Contact: Professor Warrick Couch

University of New South Wales Dept. of Astrophysics,

University of New South Wales NSW 2052

Australia

Tel: +61 2 9385 4553

Email: <u>info@phys.unsw.edu.au</u> Web: <u>www.phys.unsw.edu.au</u>

The University of New South Wales is one of the foremost universities in Australia, with over 32,000 students. The Department of Astrophysics and Optics is a growing and highly active group, consisting of six academics, eleven postdoctoral fellows, and fifteen graduate students.

The group is at the forefront of many areas of astronomy. Research activities include studies of galaxy evolution, large-scale structure, the high redshift deuterium abundance, fundamental physics (time and space variability of the constants of nature), the microwave background, extra-solar planets, high resolution spectroscopy of QSO absorption systems, infrared astronomy, star formation, the interstellar medium, astronomical instrumentation and astronomy from Antarctica.

The group also operates the Automated Patrol Telescope, the ROTSE fast-response gamma-ray burst telescope and the Mopra 22-m millimetre-wave telescope at Siding Spring Observatory, and two site-testing observatories in Antarctica.

University of New South Wales Stand G29

Contact: Tamara Davis, Professional Officer

University of New South Wales, Dept. of Astrophysics

University of New South Wales NSW 2052

Australia

Tel: +61 2 9385 4553 Fax: +61 2 9385 6060

Email: <u>info@phys.unsw.edu.au</u> Web: <u>www.phys.unsw.edu.au</u>

The University of New South Wales is one of the foremost universities in Australia, with over 32,000 students. The Department of Astrophysics and Optics is a growing and highly active group, consisting of six academics, eleven postdoctoral fellows, and fifteen graduate students.

The group is at the forefront of many areas of astronomy. Research activities include studies of galaxy evolution, large-scale structure, the high redshift deuterium abundance, fundamental physics (time and space variability of the constants of nature), the microwave background, extra-solar planets, high resolution spectroscopy of QSO absorption systems, infrared astronomy, star formation, the interstellar medium, astronomical instrumentation and astronomy from Antarctica.

The group also operates the Automated Patrol Telescope, the ROTSE fast-response gamma-ray burst telescope and the Mopra 22-m millimetre-wave telescope at Siding Spring Observatory, and two site-testing observatories in Antarctica.

University of Sydney Stand G18

Contact: Dr Anne Green

School of Physics, University of Sydney NSW 2006

Australia

Tel: +61 2 9351 5184 Fax: +61 2 9351 7726

Email: hos@physics.usyd.edu.au Web: http://physics.usyd.edu.au

The Institute of Astronomy at the University of Sydney houses one of the largest groups of Australian astronomers. Utilising leading observational facilities, researchers at Sydney study the cosmos from X-ray to radio wavelengths. Highlights include ultra-sharp resolution of stars using optical interferometers and the deepest—ever census of the southern sky using the Molonglo radio telescope.

Complementing these is a vigorous theoretical astrophysics program, uncovering the complex physics of the Sun, the extreme conditions of pulsars and gravitational lensing. This research provides exciting projects for training the next generation of astronomers, and providing other graduates with the skills for future careers in finance, computing, engineering and more.

Annex 11

IAU Industry Day Final Report

5 September 2003

Aaron Chippendale, CSIRO

Summary

IAU Industry Day was a success. It was executed within budget and was fully subscribed. CSIRO and Connell Wagner staged this event at the 25th General Assembly of the International Astronomical Union (IAU) in Sydney on 23 July 2003. It provided a full day's briefing to Australian industry on opportunities in the astronomy field – specifically opportunities to help deliver facilities for the next decade of astronomy.

Opportunities for Australian industry in astronomy were publicised directly to attendees and indirectly to the nation through an informative article in the Australian Financial Review (Annex A). We recorded the knowledge presented to the attendees in the form of a website containing all PowerPoint presentations made on the day.

We are currently assessing possible follow-up activities. These include targeted briefings of specific participants; setting up a contact and capability database; and providing a regular newsletter to keep all participants up to date.

Outcomes

Here we provide a list of IAU Industry Day outcomes which are expanded in following sections. IAU Industry Day:

- · publicised opportunities for Australian industry in astronomy;
- identified that Australia is well positioned to participate successfully in upcoming astronomy projects worldwide – an opinion shared by astronomy and industry participants;
- established that a number of Australian organisations were interested in astronomy opportunities;
- · facilitated high level networking between the industry and astronomy communities;
- · increased awareness of tools such as the Industry Capability Network (ICN); and
- · concluded that a network should be established to keep industry in touch with future developments and opportunities.

Attendance

125 attendees from 75 organisations formally registered for the event. Further participants joined at the last minute to fill the 150 person venue for the first and most important session. Annex B lists the organisations represented in the final RSVP list.

Media & Awareness

The primary media outcome was an article in the Australian Financial Review (AFR), page 8 of 24/7/03. This article is reproduced in Annex A. It commences,

"The nation's astronomers, engineers and scientists are well placed to compete for part of the \$US10 billion earmarked for international projects in telescope arrays, deep-space network tracking, observatories and related technologies,"

and continues to extend the impact of the day's key messages to readers of the AFR.

The advertising value for this article is \$25,100 and the editorial value is \$476,000 as calculated by the AXIS Public Relations & Marketing Company, our publicist for the event.

AXIS prepared a media release (Annex C) covering Astronomy industry development/spend potential as well as examples of Australia's expertise to date. Industry Day was used to create an informal pictorial and interview opportunity ensuring that spokespeople were available to meet the media's discussed angles.

Media attendees included:

- 1. Kate Marshall of Australian Financial Review
- 2. Scott Rochfort, Business, Sydney Morning Herald
- 3. Teresa Ooi, Business and photographer, The Australian

Interested but not able to attend though could be approached in the future:

- 1. Radio National Breakfast
- 2. BRW
- 3. Business Sunday

Initially, both The Australian and Sydney Morning Herald advised that the story had been upgraded to news. However, the story coincided with the death of Saddam Hussein's son and the Philippine coup and was then set on the backburner. The Australian Financial Review article was thus the only one to appear from this event.

Feedback

We distributed the feedback sheet in Annex D to attendees present at the day's conclusion. The sheet asked about the relevance of the proceedings, if the attendees perceived opportunities for their organisation in the astronomy field, and if they were interested in future projects and developments.

Annex E presents a table of the answers given by the 24 attendees who completed the feedback sheet. In summary, 22 attendees stated that the meeting was relevant (11 in fact said that it was very or highly relevant); 20 believed that there were opportunities for their organisation in the field of astronomy; and 23 said they would like to be kept informed of future projects and developments.

Further to this formal feedback, attending international leaders in the astronomy field commented that the Industry Day initiative was successful and competitive when compared to similar events staged in other countries.

Proceedings

The final programme in Annex F largely represents that presented in the Grant Agreement. We attracted twenty high impact presenters. All PowerPoint presentations were collected and placed on the web at http://www.atnf.csiro.au/iau-ga/industry. Some participants have already accessed and applied the wealth of information in this repository.

Budget

ICMS will lodge a full audited financial report detailing the grant's expenditure. The following approximate budget shows that we completed the project \$410 within budget. We recommend allocating any remainder to thank-you letters and follow-up communication aimed at keeping alive the assembled network of attendees.

| Item | Original | Expected | Expected |
|-----------------------------|----------|-------------------------|----------|
| | Budget | Expenditure | Surplus |
| Facilities Hire | \$10,000 | ICMS - \$10,000 | \$0 |
| Use of Astro-Expo for 1 day | \$5,000 | ICMS - \$5,000 | \$0 |
| Catering | \$10,000 | ICMS - \$9,690 | \$310 |
| ICMS Management & DITR | \$10,000 | ICMS - \$10,000 | \$0 |
| Liaison | | | |
| Communications & Marketing | \$5,000 | CW post - \$400 | \$100 |
| | | CW printing - \$2,500 | |
| | | CW phone & misc \$1,000 | |
| | | Axis PR - \$1,000 | |
| Total | \$40,000 | \$39,590 | \$410 |

Future Activities

Follow-up activities will include targeted briefings of specific participants; setting up a contact and capability database; and providing a regular newsletter to keep all participants up to date. We hope to nurture the relationships developed on the day with a view to forming a cohesive astronomy-industry network. Through awareness of its member's capabilities, this network will facilitate Australia's participation in developing the next generation of astronomical facilities.

Conclusion

IAU Industry Day at the 25th General Assembly of the International Astronomical Union (IAU) in Sydney on 23 July 2003 was a success. The funds provided by DITR allowed us to run the first event in a process that will lever further opportunities for Australian industry from our national excellence in astronomy.

Annex A – Australian Financial Review Article

dollars up S space

Kate Marshall

The nation's astronomers, engineers lion (\$15 billion) earmarked for international projects in telescope and scientists are well placed to compete for part of the \$US10 bilarrays, deep-space network tracking, observatories and related technologies.

National day said "frontier" discoveries by pace of technological change could create millions of dollars in high-Facility director Brian Boyle yesterastronomers and the unprecedented tech business opportunities. Australia Telescope

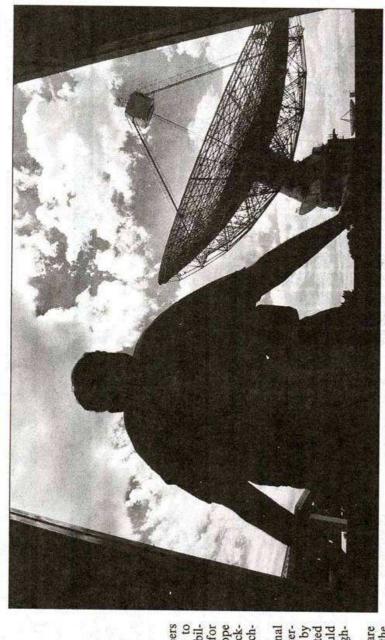
Local scientists and engineers are \$US1 billion Square Kilometre Array pinning their hopes on hosting the - hundreds of huge radio-receiving array stations in remote areas which is expected to attract \$400 million in infrastructure spending.

consortium of which Australia is a member, \$10 million in seed funding The federal government has given The site host is expected to be the SKA bid, led by an international initial technology concepts, including antennas and sites.

would be huge," he said.

CSIRO executive director, business development and commercialsation, Mehrdad Baghai, said Austnology decision two years later.

announced in 2005, and the tech-



The Parkes observatory . . . an important role in space exploration.

importance of astronomy in scientific endeavour because it had helped drive so many leading-edge technologies. ralia's head start in the history of astronomy meant it was "punching well above its weight". "Whether we host SKA or not, the impact on

telescopes and state-of-the-art radio Demand for very large optical universe is spurring new technologies cryo-engineering and IT, he told the telescopes to deepen knowledge of the in materials science, complex systems, AstroExpo conference in Sydney. the economy and radio-astronomy omers salivating is the futuristic Another project that has astron-Extremely Large Optical and Infrared Telescope, billed as a showcase for local expertise in building,

Astronomical Union meeting. There The conference was held in conunction with an International was also an industry showcase the CSIRO, the sponsored

> engineering and operating such Professor Boyle said successive governments had understood the

enormous structures.

and Resources and consulting Department of Industry, Tourism Photo: DALLAS KILPONEN engineering firm Connell Wagner. international Australia's

watching reputation was kicked off by World War II and the crucial role of

advances in radio astronomy during

the Parkes radio telescope in the first Australian astronomers to escape the It has been significantly enhanced by the continent's location in the southern hemisphere. It is easier for Apollo moon landing in 1969.

noise and light pollution their north-

ern colleagues complain about.

Annex B – Participating Organisations

| Advance Metal (Aust) Pty Ltd |
|--|
| Advanced Manufacturing Centre |
| Alstom Australia |
| Altium Limited |
| Anglo-Australian Observatory |
| Anssen Technologies |
| Arenco Pty Ltd |
| AusIndustry, NSW State Office |
| Auspace Limited |
| Australia Telescope National Facility, CSIRO |
| Australian Centre for Precision Optics |
| Australian Communications Authority |
| Australian National University |
| BAE SYSTEMS Australia, PSG |
| Barclay Mowlem Construction |
| Boral Masonary |
| Bowens Industry |
| Business Development and Commercialisation, CSIRO |
| CEA Technologies |
| Cerck Controls Pty Ltd |
| Citect |
| Cluster Navigators Australia Pty Ltd |
| Coherent Scientific Pty Ltd |
| Connell Wagner |
| Cooperative Research Centre for Satellite Systems |
| Cornell University, USA |
| CSIRO |
| Department of Industry, Tourism & Resources |
| Department of State & Regional Development |
| DSTO |
| Dynmast Pty Ltd |
| East Coast Development Engineering |
| Electro Optic Systems |
| GridComm Pty Ltd |
| Hartebeesthoek Radio Astronomy Observatory (HartRAO) |
| Hassell Group |
| IAU Commission for Astronomical Instrumentation and Techniques |
| Industry Capability Network |
| Invensys Process Systems Australia |

| IP Australia |
|--|
| IPS Radio and Space Services |
| Javac Pty Ltd |
| JEDS |
| John Holland Construction |
| Laserdyne Pty Ltd |
| Lastek Pty Ltd |
| Leighton Asia |
| Leighton Contractors |
| Linear Bearings Pty Ltd |
| Macquarie Bank |
| Macquarie Engineering & Technical Services |
| Macquarie University |
| Molonglo Observatory |
| Motion Technologies |
| Mount Stromlo Observatory, ANU |
| Nan Jing Institute of Astronomy (Nan Jing China) |
| National Astronomical Observatories, Chinese Academy of Sciences |
| National Council for Science and Technology, Mexico |
| National Instruments Australia |
| Norman Disney & Young |
| Optus |
| Primus Telecommunications |
| Raytheon |
| Reed Constructions Australia |
| ResMed Ltd |
| Rojone Pty Ltd |
| Russell Mineral Equipment Pty Ltd |
| Science Industry Australia |
| Space Operations in NASA's Office of Space Science |
| SpaceFutures |
| Swinburne Centre of Astrophysics and Supercomputing |
| Telescopes and Astronomy |
| University of Macquarie |
| University of Sydney/Anglo-Australian Observatory |
| UNSW |
| VIPAC Engineers & Scientists Ltd |

Annex C - Press Release





MEDIA RELEASE: 15/7/03

Advancing Australia...further and further into space.

The Australian Pavilion at AstroExpo, a specialist astronomy exhibition being held alongside the International Astronomical Union's 25th General Assembly (IAU GA 2003), until Saturday 26 July, will showcase 10 of our leading lights in Astronomical industry. Supported by the Commonwealth Government, in recognition of the US10billion opportunities available for Australian industry at the IAU GA 2003, the Australian Pavilion will act as a platform to take Australian technology and expertise to the international scientific community.

The Pavilion is supported by the Innovation Access Programme, an initiative of *Backing Australia's Ability,* and funding is provided jointly by the Departments of Education, Science and Training (DEST) and Industry, Tourism and Resources (DITR). In taking a national approach to showcasing Australian science, engineering, technology and innovation (SETI), the government is promoting Australia's image internationally as a source of leading-edge SETI and encourages greater international collaboration and networking.

Each of the companies and research organisations exhibiting in the Australian Pavilion and displaying under the Technology Australia banner was selected for its capacity to meet the objectives of the program. As a whole, they demonstrate the depth of Australia's skills, and our ability to realise research capabilities.

The free industry day on Wednesday 23 July offers businesses the best opportunity to meet the key international decision-makers in the astronomy field to gauge the potential business for their market and listen to presentations from a number of high profile industry leaders. Sponsored by CSIRO, Connell Wagner and DITR.

The implications for the Australian economy are enormous, with essential supporting services and infrastructure including finance, land acquisition, environmental planning, roads, power, construction, telecommunications, IT, (software / hardware), fibre networks, manufacturing and security.

"Australian researchers are world leaders in astronomical research and development as demonstrated by the exhibitors at the Australian Pavilion," comments the Hon Peter McGauran MP, Commonwealth Minister for Science.

"The Federal Government, through *Backing Australia's Ability*, provides opportunities for research organisations and companies to strengthen international collaboration and networking activities to the benefit of all Australians."

In essence, great advances are afoot in the world of Astronomy. New projects, new research, new technology. These are exciting times as new frontiers are discovered and conquered. Most exciting for Australians is the fact that our homegrown talent and technology is right up there at the forefront of the latest discoveries, with the strategic potential to reap the benefits of the Astronomy Industry's next-decade spend of US\$10 billion and to play host to world-class projects.

To cite just a couple of examples:

The Australian Pavilion showcases the technology involved in our bid to host such projects, including the proposed **Square Kilometre Array (SKA)** radio telescope and the proposed **Extremely Large Optical/Infrared telescopes (ELT)**.

The SKA will comprise hundreds of radio-receiving 'array-stations', each 250 metres in diameter, which will be spread over thousands of kilometres of the country chosen to host the project. A central cluster of array-stations will be linked to more distant ones.

This alone is a AUD2 billion project of which a large amount would be spent in the host country, complemented by a AUD 400 million infrastructure component.

With its vast, low-population interior, ultra-quiet radio frequency environment, stable economy and government, rich history of association with the world of astronomy and an unobstructed view of the Milky Way, experts believe that Australia is the perfect host for Radio Telescope projects.

"The SKA will be the most exciting global achievement ever made in radio astronomy," says Tony Barry, Connell Wagner Regional Manager who has been working with the SKA team on this project. "We believe it will open up tremendous opportunities for Australian businesses, and we want to be part of its development."

The Australian Pavilion offers visitors the opportunity to see the latest technology for themselves: from large numbers of 'array-stations' to large telescopes.

"Extremely Large Optical and Infrared Telescopes (ELTs) are the future of astronomy worldwide," says Professor Penny Sackett, director of The Australian National University's Research School of Astronomy and Astrophysics, which operates Mt Stromlo and Siding Spring Observatories. It has in the past six years secured around AUD25million worth of overseas contracts on the optical side of its business in collaboration with the Anglo Australian Observatory - Winner of Institution of Engineers Australia Engineering Excellence Award 2002 for IRIS2 (AAT) which is the world's first multi-slit infrared spectrograph imager and first use of sapphire-based grisms in astronomy.

ANU's display at the Australian Pavilion will show off its capacity to design and build the enormous telescopes, featuring mirrors 30-100m wide, highlighting the possibilities for Australian involvement in this project. Also on display will be plans to rebuild Mt Stromlo following the January bushfires.

"Australia is already at the forefront of the billion-dollar world market in advanced instrumentation for the current largest optical/infrared telescopes," says Dr Peter McGregor, whose team at the Australian National University is currently working with industrial partners on the design and manufacture of more than AUD10 million of instrumentation for the International Gemini Project Telescopes. "The challenge is to maintain our leading position into the next generation of telescopes."

Visitors to the Australian Pavilion will have the opportunity to see for themselves the way in which our Astronomy industry, and related services, is rising to that challenge.

For more information visit: www.astronomy2003.com

*Businesses interested in finding out more are welcome to the FREE industry day on Wednesday 23 July. Seating is limited, so interested parties are advised to register asap to attend, please send your name and affiliation to Rick Hopkins at Connell Wagner, at hopkinsr@conwag.com or call 02 9465 5753.

ENDS

For more information, to arrange an interview or for images contact:

Paula Opfer, The Axis Public Relations & Marketing Company – Tel (02) 9440 4202 / 0403 050 257– Email: paulaopfer@axis-trading.com



Annex D - Feedback Sheet

| Name: Company: Phone: Email: | | | - - |
|---------------------------------------|--|--|--------|
| | | | |





IAU Industry Day Feedback Sheet

Could we please ask you to fill in the following feedback sheet? 1. How relevant was the material presented today? 2. Based on what you have seen and heard today, do you believe that there are opportunities for your organisation in the field of astronomy? 3. What would you have changed / added / deleted? 4. Would you like to be kept informed of future projects and developments? 5. Further comments:

Annex E – Feedback

| Name | Organisation Represented | Sector | Relevance of Industry Day | Opportunities for Represented Organisation in Astronomy? | Suggested Changes | Interested in Future? | Comments |
|-------------------|---|---|---|---|---|-----------------------|--|
| Tim Murray | Rockwell Automation | Power, Control & Information Systems | Very | Yes | Nothing | Yes | Will follow development |
| Andrew Stewart | Australian Communications Authority | Government Body | Radioastronomy relevant to Australian spectrum regulation and planning activities | | | | |
| Jim Longley | Commonwealth Bank of Australia | Finance | Moderately | Yes, but not in the short term | Session on finance | Yes | An excellent initiative |
| Mr Robin Owen | Cluster Navigators Australia | Consultancy | First session, yes, Second, largely, third, capability, fourth, no | Yes - organisation can foster collaboration with industry, government and astronomy | More like Mehrdad Baghai and Bob Frater | Yes | A good gathering of people who could develop a whole of Australia strategic plan |
| John Russell | Russell Mineral Equipment | Manufacturing | Relevant and interesting, including trade display | Yes - design and precision manufacture | Nothing | Yes | Looking forward to engaging the 'Astronomy Engineering' market |
| David Warren | Altium | Electronic Design Software | Good, very interesting | Yes - selling our tools | Nothing | Yes | |

| Sid Magner | Coates Hire | Equipment Hire | Interesting, informative | Yes - in the construction phase | More focus on future opportuntities, less focus on historical achievements | Yes | |
|----------------------|---------------------------------|-----------------------|---|---|--|-----|--|
| Ashan Nathwany | Norman Disney and Young | Consultancy | Very relevant | Yes | Nothing | Yes | Well organised |
| Prof Justin Jonas | Rhodes University / Hart RAO | Academia | Very | We are astronomers! | Add something on training | Yes | Very similar to mtgs held in South Africa |
| Julia Hu | IP Australia | Government Body | Pertinent | Not really. IP Australia is a gvt agency that grants patents, trademarks and designs. | Nothing | Yes | |
| Mal Mellows | Motion Technologies | Machine Control | Provided good direction | Yes - precision telescopes | More involvement of surrounding engineering services and requirements to deliver working systems | Yes | Would like more information to be made available on ICN Network. Will view website |
| Peter Matthews | VIPAC Engineers and Scientists | Consultancy | Good coverage of current and future programmes | Possibly | Less advertising from some companies. More case studies of successful truly commercial products/services/companies | Yes | |
| Craig Smith | EOS | Laser Technologies | Important to see projects developing to which industry may contribute | Yes | More time for industry to show their products / capabilities, even through not directly related to astronomy | Yes | |

| Peter Mellander | Anssen Technologies | Astronomical Equipment Observatory | Very. Need more interaction between major players such as universities and large companies and manufacturers | Yes | Nothing | Yes | Need to form an 'industry database' where interested companies and/or suppliers can be continuously notified of projects in concept phase. Thank you for the opportunity today:-) |
|-----------------------|------------------------|-------------------------------------|--|---|--|-----|---|
| Col Blumem | Astrodomes | Domes | Interesting | Yes | Nothing | Yes | |
| John Cunningham | Motion Technologies | Machine Control | High | Yes - electro- mechanical systems | More info on non- electric/optical systems | Yes | |
| Alfonso Serrano | INAOE (Mexicao) | Research | Very | Yes | Nothing | Yes | |
| Bob Oreb | CSIRO - ACPO | Research | Very relevant | Yes | Nothing | Yes | Impressive compilation of Australia's expertise in Astronomy related areas |
| Robert Koppelhuber | JEDS | Asset Management | Fairly - except afternoon business presentation | Yes - radio and microwave signal processing, maintenance and repair | Nothing | Yes | Future industry / astronomy meetings |

| David Baer | Laser Micromach / Nipol Solutions | Manufacturing | Very | Yes | More informative programme with information on exhibitors and attendees | Yes | |
|--------------------|--------------------------------------|---|-------------------------------|--|---|-----|---|
| Jonathan Bowen | Lastek | Lasers & Photonics | Very | Yes | Nothing | Yes | |
| Judith Dawes | Macquarie University | Research | Generally | Research collaboration on laser communications and adaptive optics | List of contacts and what they do, quieter venue | Yes | There is scope for professional societies to include companies in their activities much more. To gulf between academic and industry is quit large |
| Robert McGeorge | Broens Industries | Toolmaking, Automation & Industrial Machines | Very relevant and educational | Yes - specialist manufacturing, machining, engineering | Nothing | Yes | Very encouraged about the potential for Australian technology an the support the exists (when discovered!) Exciting future applications for engineering expertise |
| Ron Kelly | East Coast Development Engineering | Consultancy | | Yes | Nothing | Yes | |

Annex F – Programme



IAU Industry Day Programme – 23 July 2003

Co-hosts: Mr. Andrew House – Connell Wagner

Mr. Tim Paterson – Connell Wagner

Dr. Peter Hall - Australia Telescope National Facility, CSIRO

Dr. Peter McGregor – Research School for Astronomy and

Astrophysics, ANU



<u>Connell Wagner</u>

9:00am – Introduction

Tricia Berman – General Manager, DITR Innovation Policy Branch

9:10am – Motivation

Prof. Brian Boyle – Director, Australia National Telescope Facility "Over the next decade 10 billion US dollars will be invested worldwide in astronomical facilities and observatories."

9:25am – Australia's Excellence in Astronomy

Prof. Ron Ekers – Federation Fellow, Australia Telescope National Facility and President Elect of the International Astronomical Union

Captain Cook set out to observe a star and discovered Australia, two centuries later from the same spot pioneering Australian astronomers looked at a new kind of star, a quasar, which opened up the rest of the Universe. Now we are in the position to use this land to explore the last remaining gap in our knowledge of the evolution of the Universe. Being top of the world in Astronomy, we should use our kudos to lever industry in this field.

9:40am - Connell Wagner Case Study

Mr. Andrew House - Connell Wagner

Connell Wagner is one of Australasia's largest and most experienced consulting firms in the planning, surveying, engineering design and project management of major infrastructure, commercial and industrial projects. They have delivered many key solutions to Australian astronomers over the years including the dome of the Anglo Australian Telescope and a new focus cabin and receiver translator for the Parkes radio telescope.

10:00am – Radiata Communications Case Study

Dr. Bob Frater - Vice President, ResMed Ltd.

Radiata communications developed a high-speed broad band modem chip set compatible with the IEEE 802.11a communications standard. This world standard is in turn based on CSIRO's US Patent 5,487,609. This is the story of how Radiata came to be valued at \$A567 million when it was acquired by Cisco in November 2001, and how radio astronomy influenced this development.

10:20am - Morning Tea

10:50am – Challenges and Opportunities for Astronomy – Towards 2010

This session is comprised of several 10 min snippets that give a rapid introduction to the challenges and opportunities for astronomy this decade.

Growing Industry Through Astronomical Challenges

Mr. Mehrdad Baghai – Executive Director, Business Development and Commercialisation, CSIRO

30m optical telescopes

Dr. Peter McGregor – Project Scientist, Research School for Astronomy and Astrophysics, ANU

Instrumentation, construction, and gaining time for Aussie astronomers.

Square Kilometre Array

Dr. Peter Hall – SKA Program Leader, CSIRO Australia Telescope National Facility

Technical, logistic, and organisational challenges of building the world's largest radio telescope array.

Supercomputing and the virtual observatory

Prof. Matthew Bailes – Director of the Swinburne Centre for Astrophysics and Supercomputing

Superclusters, grid computing, data mining, and data communications requirements for astronomy in the next decade.

Deep space communications requirements (TBC)

Dr. Barry Geldzahler – Program Executive for Space Operations in NASA's Office of Space Science

Meeting the communication needs of space exploration.

Future Large Antarctic Telescopes

A/Prof. Michael Ashley, School of Physics, UNSW

Space based instruments

Dr. Andrew Parfitt – CEO, Cooperative Research Centre for Satellite Systems

An astronomical payload for FedSat II and beyond.

Dr. Jeremy Bailey – Instrument Scientist, Anglo-Australian Observatory
An Australian instrument on Mars?

12:10am – Challenges and Opportunities Panel

The floor is opened to questions for a panel formed from all of the presenters in the previous session. Industry attendees are encouraged to drive the discussion, bringing up their own challenges and needs for discussion.

12:30pm – Astro-Lunch

Time to mingle freely, ask questions of each other, and undergo a guided tour of Astro Expo. The lunch will be joined by delegates of IAU Joint Discussion 08 (Large Telescopes and the International Virtual Observatory) and the IAU Working Group on Future Large Scale Facilities.

1:45pm – Australian Astronomy Capabilities

Further 10 min presentations discussing historic and present relationships between industry and Astronomy, highlighting Australia's capabilities. Presenters may include:

Swinburne University of Technology

Prof. Matthew Bailes - Director of the Swinburne Centre for Astrophysics and Supercomputing

Virtual reality for scientific visualisation

Australian Centre for Precision Optics

Dr. Roger Netterfield – Team Leader, Australian Centre for Precision Optics
Providing optics for international gravity wave detectors

Electro Optic Systems

Dr. Craig Smith – Head of Research and Development, Electro Optic Systems
Design, development and production of sophisticated laser technologies

Australia Telescope National Facility

Prof. Ray Norris – Acting Director, Australia Telescope National Facility
Building, operating, and upgrading some of the world's largest dishes

Anglo Australian Observatory

*Dr. Roger Haynes – Anglo-Australian Observatory*New optical fibres for astronomy

Mount Stromlo Observatory, ANU

Dr. Peter McGregor – Project Scientist, Research School for Astronomy and Astrophysics, ANU

Selling instruments to the largest optical telescopes

These presentations will be followed by 20 min open discussion.

3:15pm – Afternoon Tea

3:45pm – Australian Industry Capabilities & Government Initiatives The Industry Capability Network

Nicholas Driver – CEO, Industry Capability Network Sourcing Australian suppliers

DITR Enhanced Project Bylaws Scheme

Rob McKeon – General Manager, Industry Collaboration Branch, DITR Import implications

Alcatel Australia

Andrew Levido – Executive General Manager, Integration and Services, Alcatel Australia

Extending your reach with Professional Services

Altium

David Warren – Executive Director, Altium Limited

These presentations will be followed by 20 min open discussion.

5:00pm – Closing Summary

5:15pm – Reception

Annex G Invitation to Attendees





Connell Wagner

US\$10 Billion Investment in Astronomy Infrastructure and Services Worldwide

Over the next decade, up to **US\$10 billion is planned for investment** worldwide in Astronomy facilities and observatories. Astronomy is largely an untapped market and is set to boom.

So how can you be a part of this boom?

The key decision-makers in the Astronomy industry are convening in Sydney in July for their tri-annual General Assembly. In conjunction with this meeting, Connell Wagner and CSIRO, with support from the Department of Industry, Tourism and Resources, are hosting an **Industry Day, free of charge**. On this day, you will meet these key players, listen to presentations on the opportunities and direction of the Astronomy industry, as well as participate in open discussions.

The benefits of attending the free of charge Industry Day include:

- · learn more about the US\$10 billion investment over the next decade
- hear key players from the Astronomy community present papers on the upcoming opportunities
- network with the key decision-makers in the Astronomy industry and interested government bodies
- free entry into the Astro Expo (the exhibition component of the General Assembly)
- · free lunch and cocktail function

As major sponsors of the IAU General Assembly, we invite you to participate in the Industry Day on:

Date: Wednesday 23rd July 2003

Time: 8.30 am registration for 9.00 am start through to 5.15 pm.

(Cocktail function 5.15 – 6.30 pm)

Venue: Hall 5, Convention & Exhibition Centre at Darling Harbour, Sydney.

Seating is limited, so please

RSVP no later than 16th July 2003 to Juliana Au on (02) 9465 5809 or auj@conwag.com.

We look forward to seeing you at the Industry Day, and to Australian companies playing a significant role in the development of the Astronomy industry both locally and abroad.

Yours sincerely

Professor Brian Boyle Director-designate

Australia Telescope National Facility, CSIRO

Tony Barry

Regional Manager (NSW)

lithough the Thermy

Connell Wagner



Connell Wagner



Co-hosts: Mr. Andrew House – Connell Wagner

Mr Tim Paterson - Connell Wagner

Dr. Peter Hall – Australia Telescope National Facility, CSIRO Dr. Peter McGregor – Mount Stromlo Observatory, ANU

MORNING SESSION

9:00am - Welcome - Department of Industry, Tourism and Infrastructure (DITR)

9:10am - Introductions

Over the next decade, \$US10 billion will be invested worldwide in astronomy facilities and observatories

Prof. Brian Boyle - Director, Australia Telescope National Facility, CSIRO

Australia's Excellence in Astronomy

Prof. Ron Ekers – Australia Telescope National Facility, President Elect IAU

9:40am - Industry Case Studies

Consultants to the Astronomy Industry

Mr. Andrew House, Connell Wagner

Radar Systems and the SKA

Mr. Andy Anderson, CEA Technologies

The High-Speed Broad Band Modem Chip That Made Half a Billion for Radiata Communications

Dr. Bob Frater, Vice President, ResMed Ltd.

10:30am - Morning Tea

11:00am - Challenges and Opportunities for Astronomy - Towards 2010

Growing Industry Through Astronomy Challenges

Mr. Mehrdad Baghai Executive Director, Business Development and Commercialisation, CSIRO

30m Optical Telescopes

Dr. Peter McGregor - Project Scientist, Mount Stromlo Observatory, ANU

Square Kilometre Array

Dr. Peter Hall - SKA Program Leader, Australia Telescope National Facility, CSIRO

Supercomputing and the Virtual Observatory

Prof. Matthew Bailes - Director of the Swinburne Centre for Astrophysics and Supercomputing

Deep Space Communications Requirements

Dr. Barry Geldzahler – Program Executive for Space Operations in NASA's Office of Space Science

Space Based Instruments

Dr. Andrew Parfitt - CEO, Cooperative Research Centre for Satellite Systems

Dr. Jeremy Bailey – Instrument Scientist, Anglo-Australian Observatory

These presentations will be followed by a 20 minute open discussion.





Connell Wagner

AFTERNOON SESSION

1:45pm - Australian Astronomy Capabilities

Virtual Reality For Scientific Visualisation
Prof. Matthew Bailes - Swinburne University of Technology
Providing Optics For International Gravity Wave Detectors

Dr Roger Nettlefield –Australian Centre for Precision Optics

Electro Optic Systems

Craig Smith - Head of Research and Development, Electro Optic Systems

Australia Telescope National Facility

Prof. Ray Norris - Acting Director, Australia Telescope National Facility, CSIRO

Anglo-Australian Observatory

Dr. Joss Bland-Hawthorn - Anglo-Australian Observatory

Mount Stromlo Observatory, ANU

Dr. Peter McGregor - Project Scientist, Mount Stromlo Observatory, ANU

These presentations will be followed by a 20 minute open discussion.

3:15pm - Afternoon Tea

3:45pm - Australian Industry Capabilities and Government Initiatives

The Industry Capability Network

Nicholas Driver - CEO, Industry Capability Network - Sourcing Australian suppliers

Department of Industry, Tourism and Resources (DITR) Enhanced Project By-laws Scheme Import implications

Extending Your Reach with Professional Services

Andrew Levido - Executive General Manager - Integration and Services, Alcatel Australia

The Protel Experience and the State of IT in Australia

David Warren, Exective Director, Altium Limited.

Participant Showcase

Chance for an organisation participating in Industry day to showcase their capabilities

These presentations will be followed by a 20 minute open discussion.

5:00pm - Closing Summary

5:15pm - Reception

Annex 12 DELEGATE LIST

| Name | U드L드(에) I 드 니잉 I Organisation | Country |
|--|--|--------------------|
| | | Country USA |
| A'HEARN, Michael F. ABI-YOUNES, Joanne | University of Maryland | JOA |
| ADAMI, Christophe | LAM | FRANCE |
| ADELBERGER, Kurt | Harvard University | USA |
| AERTS, Conny | University Of Leuven | BELGIUM |
| AGAFANOV, Michail | Radiophysical Reasearch Institute | RUSSIAN FEDERATION |
| AGHANIM, Nabila | Institut D'Astrophysique Spatiale | FRANCE |
| AGUIRRE, Anthony | Institute For Advanced Study | USA |
| AHN, Youngsook | Korea Astronomy Observatory | KOREA |
| Al, Guoxiang | National Astronomical Observatories, CAS | CHINA |
| AIKAWA, Yuri | Kobe University | JAPAN |
| AJIKI, Masaru | Tohoku University | JAPAN |
| AKESON, Rachel | Caltech | USA |
| AKSNES, Kaare | University Of Oslo | NORWAY |
| ALCOCK, Charles | University of Pennsylvania | USA |
| ALI, Priscilla | DA Information Services | AUSTRALIA |
| ALLEN, Anthony | | TAIWAN |
| ALLEN, Christine | National University, Mexico | MEXICO |
| ALLEN, Mark | Universite Louis Pasteur | FRANCE |
| ALLEN, Ronald J. | Space Telescope Science Institute | USA |
| ALLOIN, Danielle | European Southern Observatory | CHILE |
| ALSABTI, Abdul Athem | University College London | UK |
| ALVAREZ DEL CASTILLO, Elizabeth | International Dark-Sky Association | USA |
| ALVES, David R | Columbia University | USA |
| ALVES, João | European Southern Observatory | GERMANY |
| AMADO, Pedro | Instituto De Astrofisica De Andalucia - CSIC | SPAIN |
| AMATO, Elena | Osservatorio Astrofisico Arcetri | ITALY |
| AMBROZ, Pavel | The Academy of Science of the Czech Republic | CZECH REPUBLIC |
| AMRAM, Philippe | LAM | FRANCE |
| AMY, Shaun | CSIRO | AUSTRALIA |
| ANANDARAO, Boddapati | Physical Research Laboratory | INDIA |
| ANANTHAKRISHNAN, Subramaniam | National Centre For Radio Astrophysics, TIFR | INDIA |
| ANDERS, Peter | Universitaets-Sternwarte | GERMANY |
| ANDERSEN, Johannes | Nordic Optical Telescope | DENMARK |
| ANDRZEJEWSKI, Caroline Jane | The University of Melbourne | AUSTRALIA |
| ANN, Hong Bae | Pusan National University | KOREA JAPAN |
| AOKI, Wako | National Astronomical Observatory | |
| APAI, Daniel | Max-Planck-Institute For Astronomy | GERMANY |
| APPENZELLED Imme | Landagatarnyyarta | GERMANY |
| APAYA Fetaban | Landessternwarte | PUERTO RICO |
| ARAYA, Esteban ARCE, Hector G. | University of Puerto Rico | USA |
| ARCHINAL, Brent | California Institute Of Technology U. S. Geological Survey | USA |
| ARELLANO FERRO, Armando | Instituto De Astronomia, UNAM | MEXICO |
| ARENOU, Frederic | Observatoire De Paris | FRANCE |
| ARGYLE, Robert | Institute Of Astronomy | UK |
| ARIAS, Elisa Felicitas | BIPM | FRANCE |
| ARLOT, Jean-Eudes | CNRS Observatory | FRANCE |
| ARNABOLDI, Magda | Observatory Of Turin | ITALY |
| ARNOULD, Marcel | Universite Libre De Bruxelles | BELGIUM |
| ARONS, Jonathan | University of California | USA |
| ASAI, Naoki | Chiba University | JAPAN |
| ASHLEY, Michael | The University of New South Wales | AUSTRALIA |
| ASPLUND, Martin | Australian National University | AUSTRALIA |
| ATHANASSOULA, Lia | Observatoire De Marseille | FRANCE |
| AUDARD, Marc | Columbia Astrophysics Laboratory | USA |
| AYESHA BEGUM, | Tata Institute Of Fundamental Research (TIFR) | INDIA |
| BABAR, Ali | IPAC/Caltech | USA |
| BACHILLER, Rafael | Observatoria Astronomico Nacional | SPAIN |
| BACMANN, Aurore | European Southern Observatory | GERMANY |
| BAES, Maarten | Universiteit Gent, Sterrenkundig Observatorium | BELGIUM |
| | | |

| Name | Organisation | Country |
|---------------------------------------|--|--------------|
| BAGGALEY, Jack | University Of Canterbury | NEW ZEALAND |
| BAILES, Matthew | Swinburne Centre for Astrophysics And Supercomputing | AUSTRALIA |
| BAILEY, Janelle | University of Arizona | USA |
| BAILEY, Jeremy | Anglo-Australian Observatory | AUSTRALIA |
| BAILIN, Jeremy | Steward Observatory | USA |
| BAKARE, John Abiodun | Erakab Trading Venture | SOUTH AFRICA |
| BAKER, Joanne | University of Oxford | UK |
| BAKER, Norman H | Columbia University | USA |
| BALAZS, Bela A. | Eotvos Lorand University | HUNGARY |
| BALÁZS, Lajos György | Konkoly Observatory | HUNGARY |
| BALDRY, Ivan | Johns Hopkins University | USA |
| BALL, Lewis | ATNF/CSIRO | AUSTRALIA |
| BALLESTER, Pascal | European Southern Observatory | GERMANY |
| BALMAN, Solen | Middle East Technical University | TURKEY |
| BANGERT, John | US Naval Observatory | USA |
| BANHIDI, Zita | Ruhr-Universitaet Bochum | GERMANY |
| BAO, Shudong | National Astronomical Observatories, CAS | CHINA |
| BAPTISTA, Raymundo | Universidade Federal De Santa Catarina | BRAZIL |
| BARBUY, Beatriz | University Of Sao Paulo | BRAZIL |
| BARDEN, Marco | Max-Planck-Institute For Astronomy | GERMANY |
| BARDEN, Marco | National Optical Astronomy Observatory | USA |
| BARGER, Amy | University of Wisconsin-Madison | USA |
| BARING, Matthew | Rice University | USA |
| BARNES, David | The University of Melbourne | AUSTRALIA |
| BARNES, John Robert | University of St Andrews | UK |
| BARNES, Peter | Sydney University | AUSTRALIA |
| BARSONY, Mary | San Francisco State University | USA |
| BARSTOW, Martin Adrian | University Of Leicester | UK |
| BARTH, Aaron | California Institute Of Technology | USA |
| BARUAH, Rulee | HRH The Prince Of Wales Inst. Of Eng. & Technology | INDIA |
| BARUCCI, Marie Antonietta | Observatoire De Paris-Meudon | FRANCE |
| BARUCH, John | University of Bradford | UK |
| BASRI, Gibor | University of California | USA |
| BASTIAN, Tim | National Radio Astronomy Observatory | USA |
| BASTIEN, Pierre | University of Montreal | CANADA |
| BATCHELOR, Robert Alexander | Offiversity of Worldean | AUSTRALIA |
| BATE, Matthew | University of Exeter | UK |
| BAUDIN, Frederic | Institut D'Astrophysique Spatiale | FRANCE |
| BAUMGARDT, Holger | University Of Tokyo | JAPAN |
| BAVASSANO, Bruno | Istituto Di Fisica Dello Spazio Interplanetario (CNR) | ITALY |
| BEASLEY, Anthony | California Institute Of Technology | USA |
| BEASLEY, Mike | Swinburne University of Technology | AUSTRALIA |
| BECKER, Robert | University of California | USA |
| BECKER, Werner | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| BECKFORD, Adele | University of Hertfordshire | UK |
| BECKLIN, Eric | UCLA | USA |
| BECKWITH, Steven | Space Telescope Science Institute | USA |
| BEDDING, Tim | The University of Sydney | AUSTRALIA |
| BEERS, Timothy | Michigan State University | USA |
| BEIERSDORFER, Peter | Lawrence Livermore National Laboratory | USA |
| BEIGLBOECK, Wolf | Springer-Verlag | GERMANY |
| BEKKI, Kenji | The University of NSW | AUSTRALIA |
| BELL BURNELL, Jocelyn | University of Bath | UK |
| BELLING, Erica | Shive Sity of Datif | - |
| BELY-DUBAU, Francoise | Observatoire De La Cote D'Azur | FRANCE |
| BENNETT, Charles | NASA/GSFC | USA |
| BENVENUTI, Piero | Space Telescope European Coordinating Facility | GERMANY |
| • | Institute Of Astronomy | SWITZERLAND |
| BENZ, Arnold O. | · | SWITZERLAND |
| BERDYUGINA, Svetlana BERGER, Mitchell | Institute Of Astronomy, ETH Zurich University College London | UK |
| BERGMANN, Marcel | NOAO Gemini Science Center | USA |
| DEIXOIMAININ, IVIAICEI | NONO Geninii Golence Gentei | 30, (|

| Name | Organisation | Country |
|------------------------------|--|------------------------|
| BERNSTEIN, Danielle | Australian National University | AUSTRALIA |
| BERRIMAN, Bruce | California Institute Of Technology | USA |
| BERTOLA, Francesco | University of Padova | ITALY |
| BESSELL, Michael S | Australian National University | AUSTRALIA |
| BEST, Philip | University Of Edinburgh | UK |
| BEUTHER, Henrik | Harvard-Smithsonian Center For Astrophysics | USA |
| BEZZINA, Rebecca | That value Chillings that it control is a real oppropriate | |
| BHATHAL, Ragbir | University of Western Sydney | AUSTRALIA |
| BHAVSAR, Suketu | University of Kentucky | USA |
| BICKNELL, Geoffrey | Australian National University | AUSTRALIA |
| BIGGS, James | Perth Observatory | AUSTRALIA |
| BIGNALL, Hayley | Joint Institute For VLBI, Europe | THE NETHERLANDS |
| BIGNAMI, Giovanni F. | CESR | FRANCE |
| BIK, Arjan | University of Amsterdam | THE NETHERLANDS |
| BINGGELI, Bruno | University of Basel | SWITZERLAND |
| BINNEY, James | Oxford University | UK |
| BINZEL, Richard | M.I.T. | USA |
| BIRKS, Joseph Redfern | UMIST | UK |
| BJORKMAN, Jon Eric | University of Toledo | USA |
| BJORKMAN, Karen | University of Toledo | USA |
| BLAKE, Christopher | The University of New South Wales | AUSTRALIA |
| BLAKE, Geoffrey | California Institute Of Technology | USA |
| BLAKESLEE, John | Johns Hopkins University | USA |
| BLAND-HAWTHORN, Joss | AAO | AUSTRALIA |
| BLASI, Pasquale | Osservatorio Astrofisico Di Arcetri | ITALY |
| BLOM, Harry | Kluwer Academic Publishers | THE NETHERLANDS |
| BLUNDELL, Katherine | Oxford University | UK |
| BOCK, Douglas | University of California | USA |
| BOCKELEE-MORVAN, Dominique | Observatoire De Paris-Meudon | FRANCE |
| BODEN, Andy | California Institute Of Technology | USA |
| BOEHRINGER, Hans | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| BOICE, Daniel C. | Southwest Research Institute | USA |
| BOLAND, Wilfried | Netherlands Research School For Astronomy | THE NETHERLANDS USA |
| BOLATTO, Alberto | University of California | GERMANY |
| BOLLER, Thomas | Max-Planck-Institut Fuer Extraterrestrische Physik | ITALY |
| BONNET Pager Maurice | Instituto Nazionale Di Astro Fisca | FRANCE |
| BONNET, Roger-Maurice | COSPAR Kentoun Astronomical Institute | THE NETHERLANDS |
| BOOMSMA, Rense BOOTH, Roy | Kapteyn Astronomical Institute Onsala Space Observatory | SWEDEN |
| BOSMA, Albert | Observatoire De Marseille | FRANCE |
| BOTHA, Gert J. J. | University College London | UK |
| BOUCHARD, Antoine | Australian National University | AUSTRALIA |
| BOUNDY, Roslyn | Additional Only Clory | |
| BOURKE, Tyler | Harvard-Smithsonian Center For Astrophysics | USA |
| BOUY, Herve | European Southern Observatory | GERMANY |
| BOWELL, Edward | Lowell Observatory | USA |
| BOYD, Mark | Coonabarabran Shire Council | AUSTRALIA |
| BOYLE, Brian | Anglo-Australian Observatory | AUSTRALIA |
| BOYLE, Richard P. | Vatican Observatory | USA |
| BRADLEY, Arthur | Spacecraft System Engineering Services | USA |
| BRAFFORD, Suellen | University of Dayton | USA |
| BRAINE, Jonathan | Observatoire de Bordeaux | FRANCE |
| BRAINERD, Tereasa | Boston University | USA |
| BRANDEKER, Alexis | Stockholm Observatory | SWEDEN |
| BRANDNER, Wolfgang | Max-Planck-Institute For Astronomy | GERMANY |
| BRAY, Robert | CSIRO | AUSTRALIA |
| BRECKINRIDGE, James | Jet Propulsion Laboratory | USA |
| BRICKHOUSE, Nancy | Smithsonian Astrophysical Observatory | USA |
| BRIDGES, Terry | Anglo-Australian Observatory | AUSTRALIA |
| BRIDLE, Sarah | Institute Of Astronomy | UK |
| BRIGGS, Frank | Australian National University | AUSTRALIA |
| | | |

| Name | Organisation | Country |
|--|--|------------------|
| BRIGGS, Kevin | Paul Scherrer Institut | SWITZERLAND |
| BRINKS, Elias | INAOE | MEXICO |
| BRODIE, Jean | UCO/Lick Observatory | USA |
| BROOKS, John | CSIRO/ATNF | AUSTRALIA |
| BROUW, Wim | ATNF/CSIRO | AUSTRALIA |
| BROWN, Alexander | University Of Colorado | USA |
| BROWN, Gregory V. | University of Maryland | USA |
| BROWN, Joanna | California Institute Of Technology | USA |
| BROWN, John C. | University of Glasgow | UK |
| BROWN, Michael James Isles | National Optical Astronomy Observatory | USA |
| BROWN, Robert L | National Astronomy & Ionosphere Center | USA |
| BROWNLEE, Don | University of Washington | USA |
| BRUN, Allan Sacha | CEA Saclay | FRANCE |
| BRUNSWICH, Rob | Eos & Eost | USA |
| BRYANT, Greg | Sky & Telescope Magazine | AUSTRALIA |
| BUCKLEY, David | Southern African Large Telescope | SOUTH AFRICA |
| BUES, Irmela | University of Erlangen | GERMANY |
| BULIK, Tomasz | Nicolaus Coperniucs Astronomical Centre | POLAND |
| BUOTE, David | University of California | USA |
| BUREAU, Martin | Columbia University | USA |
| BURGAY, Marta | Bologna Astronomical Departement | ITALY |
| • | Arizona State University | USA |
| BURSTEIN, David | • | AUSTRALIA |
| BURTON, Michael | The University of New South Wales | THE NETHERLANDS |
| BUTCHER, Harvey | ASTRON | USA USA |
| BUTLER, Bryan | National Radio Astronomy Observatory | USA |
| BUTT, Yousaf Mahmood | CFA/SAO | |
| BUTTERWORTH, Paul | Erco Lighting | AUSTRALIA |
| BUXTON, Michelle | Yale University | USA |
| BUYLE, Pieter | Ghent University | BELGIUM |
| BUZASI, Derek | US Air Force Academy | USA |
| CAIRNS, Iver | The University of Sydney | AUSTRALIA |
| CALABRETTA, Mark R. | ATNF/CSIRO | AUSTRALIA |
| CALDWELL, Douglas | SETI Institute | USA |
| CALLY, Paul | Monash University | AUSTRALIA |
| CALVET, Nuria | Smithsonian Astrophysical Observatory | USA |
| CAMERON, Andrew | University of St Andrews | UK |
| CAMILO, Fernando | Columbia University | USA |
| CAMPBELL, Donald | Cornell University | USA |
| CAMPBELL, Garey | | |
| CAMPBELL, John | James Cook University | AUSTRALIA |
| CAMPBELL, Robert M. | Joint Institute For VLBI, Europe | THE NETHERLANDS |
| CANDIDI, Maurizio | IFSI/CNR | ITALY |
| CANE, Hilary | Bruny Island Radio Spectrometer | AUSTRALIA |
| CANFIELD, Richard | Montana State University | USA |
| CANNON, Russell | Anglo-Australian Observatory | AUSTRALIA |
| CAPITAINE, Nicole | Observatoire De Paris | FRANCE |
| CARAVEO, Patrizia | IASF-Milano "G. Occhialini" | ITALY |
| CARIGNAN, Claude | University Of Montreal | CANADA |
| CARLSTROM, John | The University of Chicago | USA |
| CAROLLO, Daniela | Osservatorio Astronomico Di Torino | ITALY |
| CARPENTER, Kenneth | NASA/GSFC | USA |
| CARR, Janet | Australian Broadcasting Corporation | AUSTRALIA |
| CARSWELL, Robert F | Institute Of Astronomy | UK |
| CARTER, Brad | The University of Southern Queensland | AUSTRALIA |
| CARTER, Blau CARTWRIGHT, Susan | Sheffield University | UK |
| · | Osservatorio Astrofisico Di Arcetri | ITALY |
| CASELLI, Paola | | USA |
| CASSAM CHENAL Comil | University of Colorado | FRANCE |
| CASSAM CHENAI, Gamil | CEA Saclay | AUSTRALIA |
| CANDEL Barres | ATNF/CSIRO | |
| CAYREL, Roger CAYREL-DE-STROBEL, Giusa | Observatoire De Paris Observatoire De Paris-Meudon | FRANCE FRANCE |
| | | |

| Name | Organisation | Country |
|-------------------------------------|---|------------------------|
| CELEBRE, Cynthia | Pagasa | PHILIPPINES |
| CELLINO, Alberto | Osservatorio Astronomico Di Torino | ITALY |
| CEMELJIC, Miljenko | Astrophysical Institute Potsdam | GERMANY |
| CESARSKY, Catherine | European Southern Observatory | GERMANY |
| CHAE, Jongchul | Chungnam National University | KOREA |
| CHAKRABARTI, Supriya | Boston University | USA |
| CHAMBERLIN, Richard | Caltech Submillimeter Observatory | USA |
| CHAMBLISS, Carlson | Kutztown University | USA |
| CHAN, Ben | The University of Sydney | AUSTRALIA |
| CHAN, Kwing L. | The Hong Kong University of Science And Technology | CHINA |
| CHAN, Sze-Ting | University of Tokyo | JAPAN |
| CHANDRASEKHAR, Thyagarajan | Physical Research Laboratory | INDIA |
| CHANGCHIT, Nantawan | | |
| CHANGCHIT, Vantanee | | |
| CHAPMAN, Jacqueline | The University of Sydney | AUSTRALIA |
| CHAPMAN, Jessica | ATNF/CSIRO | AUSTRALIA |
| CHARBONNEAU, David | California Institute Of Technology | USA |
| CHARLOT, Patrick | Observatoire De Bordeaux | FRANCE |
| CHARNLEY, Steven Black | NASA Ames Research Centre | USA |
| CHARTAS, George | Penn State University | USA |
| CHATTERJEE, Tapan Kumar | Puebla University | MEXICO |
| CHEMIN, Laurent | Université De Montréal | CANADA |
| CHEN, Lin-Wen | National Taiwan Normal University | TAIWAN |
| CHENG, Andrew | Johns Hopkins Applied Physics Laboratory | USA |
| CHENG, Fuzhen | University Of Science & Technology | CHINA |
| CHENG, Kwang-Ping | California State University | USA |
| CHENGALUR, Jayaram Narayanan | Pune University Campus | INDIA |
| CHESLEY, Steven | Jet Propulsion Laboratory | USA |
| CHEVALIER, Roger | University of Virginia | USA |
| CHI, Seungyoup | Seoul National University | KOREA |
| CHIBA, Masashi | National Astronomical Observatory | JAPAN |
| CHIEFFI, Alessandro | Istituto Di Astrofisica Spaziale E Fisica Cosmico | ITALY |
| CHIGAI, Takeshi | Kobe University | JAPAN |
| CHIN, Yi-Nan | Tamkang University | TAIWAN |
| CHINCARINI, Guido | Universita` Degli Studi Milano Bicocca E Osservatorio Astronomico | ITALY |
| CHITRE, Shashikumar | University Of Mumbai | INDIA |
| CHO, Dong-Hwan | Seoul National University | KOREA |
| CHONG, Philip | Pierlite Pty Ltd | AUSTRALIA |
| CHRISTENSEN, Lars Lindberg | Hubble European Space Agency Information Centre | GERMANY |
| CHRISTENSEN-DALSGAARD, Joergen | University Of Aarhus | DENMARK |
| CHRISTIANSEN, Jessie Leigh | Australian National University | AUSTRALIA |
| CHU, Yaoquan | Centre For Astrophysics | CHINA |
| CHUBEY, Markiyan S. | Central Astronomical Observatory, Pulkovo | RUSSIAN FEDERATION |
| CHURYUMOV, Klym | Kyiv Shevchenko National University | UKRAINE |
| CIARDULLO, Robin | Penn State University | USA |
| CLAMPIN, Mark | NASA/GSFC | USA |
| CLANCY, Fred | Coonabarabran Shire Council | AUSTRALIA |
| CLANCY, Kelly | MIT | USA |
| CLARKE, Tracy | University of Virginia | USA |
| CLAUSEN, Jens Viggo | Copenhagen University Observatory | DENMARK |
| CLEMENS, Marcel | University of Padova | ITALY USA |
| CODY, Ann Marie | Harvard University | IRELAND |
| COFFEY, Deirdre | Dublin Institute For Advanced Studies | UK |
| COHEN, Raymond James | University of Manchester | |
| COLE, David | IPS Radio & Space Services | AUSTRALIA AUSTRALIA |
| COLETTI Danna | Australian National University | USA |
| COLLESS Motthour | Harvard-Smithsonian Center For Astrophysics | AUSTRALIA |
| COLLINGS Mark | Australian National University | UK |
| COLLINGS, Mark | University of Nottingham Observatoire De Paris | FRANCE |
| COMBES, Francoise COMBI, Michael R. | University of Michigan | USA |
| COMIDI, MIGIAEL N. | Oniversity of Michigan | 30.1 |

| Name | Organisation | Country |
|--------------------------------|---|--------------------------|
| CONDON, James | National Radio Astronomy Observatory | USA |
| CONN, Blair Campbell | The University of Sydney | AUSTRALIA |
| CONSELICE, Christopher | California Institute Of Technology | USA |
| CONSOLMAGNO SJ, Guy | Specola Vaticana | VATICAN CITY STATE (HOLY |
| COOK, Kem | Lawrence Livermore National Laboratory | USA |
| COOPER, Jackie Louise | Australian National University | AUSTRALIA |
| COORAY, Asantha | California Institute Of Technology | USA |
| CORBALLY, Christopher | Vatican Observatory | VATICAN CITY STATE (HOLY |
| CORDES, James M. | Cornell University | USA |
| CORREIA, Jose Carlos | University of Lisbon | PORTUGAL |
| CORSINI, Enrico Maria | University of Padova | ITALY |
| COTERA, Angela | SETI Institute | USA |
| COTTER, Garret | University of Cambridge | UK |
| COTTON, William | National Radio Astronomy Observatory | USA |
| COUCH, Warrick | The Australian Gemini Office (AusGo) | AUSTRALIA |
| COUDE DU FORESTO, Vincent | Observatoire De Paris-Meudon | FRANCE |
| COUPER, Heather Anita | BBC | UK |
| COURTIN, Regis | Obervatoire De Paris | FRANCE |
| COUTURES, Christian | Commissariat A L'Energie Atomique (C.E.A.) | CHILE |
| COX, Pierre | Institut D'Astrophysique Spatiale | FRANCE |
| CRABTREE, Dennis | National Research Council | CANADA |
| CRAIG, Nahide | University of California | USA |
| CRAM, Lawrence | Australian Research Council | AUSTRALIA |
| CRAMER, Neil | The University of Sydney | AUSTRALIA |
| CRAUSE, Lisa | University of Cape Town | SOUTH AFRICA |
| CRAWFORD, Carolin | University of Cambridge | UK |
| CRESS, Catherine Marion | University of Natal | SOUTH AFRICA |
| CRIGHTON, Neil Hugh Mackinnon | The University of New South Wales | AUSTRALIA |
| CROOM, Scott | Anglo-Australian Observatory | AUSTRALIA |
| CROSS, Nicholas | Johns Hopkins University | USA |
| CROSTA, Maria Teresa | Observatory Of Turin | ITALY |
| CROTTS, Arlin | Columbia University | USA |
| CRUIKSHANK, Dale P. | NASA Ames Research Center | USA |
| CUI, Chenzhou | National Astronomical Observatories, CAS | CHINA |
| CUI, Xiangqun | Nanjing Institute Of Astronomical Optics & Technology | CHINA |
| CULLUM, Martin | European Southern Observatory | GERMANY |
| CUNHA, Katia | Observatorio Nacional - McT | BRAZIL |
| CUNTZ, Manfred | University Of Texas | USA |
| CURRAN, Stephen | The University of New South Wales | AUSTRALIA |
| D'ALESSIO, Paola | Universidad Nacional Autonoma De Mexico | MEXICO |
| D'ANTONA, Francesca | Osservatorio Astronomico Di Roma | ITALY |
| DA COSTA, Gary Stewart | Australian National University | AUSTRALIA |
| DAISHIDO, Tsuneaki | Waseda University | JAPAN |
| DALL'OSSO, Simone | Universita' Di Roma "La Sapienza"/O.A.R. Monteporzio Catone | ITALY |
| DALRYMPLE, Leslie-Roy | Sky Telescope Magazine | AUSTRALIA |
| DAMLJANOVIC, Goran | Astronomical Observatory | YUGOSLAVIA |
| DANCHI, Bill | NASA/GSFC | USA |
| DANZIGER, John | Trieste Observatory | ITALY |
| DARLING, Jeremy | Carnegie Observatories | USA |
| DA SILVA, Wilson | The Lab - ABC Science Online | AUSTRALIA |
| DASZYNSKA-DASZKIEWICZ, Jadwiga | Polish Academy Of Sciences | POLAND |
| DAVE, Romeel | Steward Observatory | USA |
| DAVID, Laurence | Smithsonian Astrophysical Observatory | USA |
| DAVIDSON, Jacqueline | Sofia - Usra | USA |
| DAVIES, Ashley | Jet Propulsion Laboratory | USA |
| DAVIES, Pauline | ABC R National | AUSTRALIA |
| DAVIS, Christopher J. | Joint Astronomy Centre | USA |
| DAVIS, Donald R. | Planetary Science Institute | USA |
| · | The University of Sydney | AUSTRALIA |
| DAVIS, John | | |
| DAVIS, Joilli DAVIS, Tamara | The University of New South Wales | AUSTRALIA |

| Name | Organisation | Country |
|----------------------------------|--|--------------------|
| DEACON, Rachel Mary | The University of Sydney | AUSTRALIA |
| DÉBARBAT, Suzanne V. | Observatoire De Paris | FRANCE |
| DE BERGH, Catherine | Observatoire De Paris-Meudon | FRANCE |
| DE BERNARDIS, Paolo | Universita' La Sapienza | ITALY |
| DE BLOK, Erwin | Cardiff University | UK |
| DE BOER, Klaas S. | Sternwarte | GERMANY |
| DE BRUYN, Ger | ASTRON | THE NETHERLANDS |
| DE BUIZER, James | Gemini Observatory | USA |
| DE FELICE, Fernando | University of Padova | ITALY |
| DE GOUVEIA DAL PINO, Elisabete M | University of Sao Paulo | BRAZIL |
| DE GRIJS, Richard | University Of Sheffield | UK |
| DEHANT, Véronique | Royal Observatory Of Belgium | BELGIUM |
| DEHGHANI, M. Hossein | Shiraz University | IRAN |
| DE JESUS, Maryvonne | IPN-Lyon | FRANCE |
| DE JONG, Roelof | Space Telescope Science Institute | USA |
| DE JONG, Teije | Space Research Organisation Netherlands | THE NETHERLANDS |
| DE LA REZA, Ramiro | National Observatory | BRAZIL |
| DELPLANCKE, Francoise | European Southern Observatory | GERMANY |
| DE MARCHI, Guido | European Space Agency | USA |
| DE MELLO, Duilia | NASA/GSFC | USA |
| DEMERS, Serge | Universite De Montreal | CANADA |
| DEMPSEY, Jessica Tui | The University of New South Wales | AUSTRALIA |
| DEN HARTOG, Peter | SRON, National Institute For Space Research | THE NETHERLANDS |
| DENISENKOV, Pavel | University of Victoria | CANADA |
| DENNEFELD, Michel | Institut D'Astrophysique De Paris | FRANCE |
| DENNIS, Carina | Nature | AUSTRALIA |
| DE PROPRIS, Roberto | Australian National University | AUSTRALIA |
| DEROSA, Marc | Lockheed Martin, Solar Astrophysics Laboratory | USA |
| DE RUITER, Hans Rudolf | Osservatorio Astronomico Di Bologna | ITALY |
| DE SILVA, Gayandhi | Mount Stromlo Observatory | AUSTRALIA |
| DESSAUGES, Miroslava | Geneva Observatory | SWITZERLAND |
| DEUSTUA, Susana | American Astronomical Society | USA |
| DE ZEEUW, Tim | Leiden Observatory | THE NETHERLANDS |
| DHURANDHAR, Sanjeev | Inter-University Centre For Astronomy And Astrophysics (IUCAA) | INDIA |
| DIAMOND, Philip | Jodrell Bank Observatory | UK |
| DICK, Steven | U. S. Naval Observatory | USA |
| DICKEL, Helene | University of Illinois | USA |
| DICKEL, John | University of Illinois | USA |
| DICKINSON, Clive | Jodrell Bank Observatory | UK |
| DI FOLCO, Emmanuel | European Southern Observatory | GERMANY |
| DI FRANCESCO, James | National Research Council | CANADA |
| DI MARTINO, Mario | Osservatorio Astronomico Di Torino | ITALY |
| DI MAURO, Maria | Astrophysical Observatory Of Catania | ITALY |
| DIND, Zoe Elizabeth | The University of Sydney | AUSTRALIA |
| DING, Ming-De | Nanjing University | CHINA |
| DI RICO, Gianluca | Istituto Di Radiastronomia | ITALY |
| DLIGATCH, Svetlana | CSIRO | AUSTRALIA |
| DLUZHNEVSKAYA, Olga | Institute Of Astronomy | RUSSIAN FEDERATION |
| DODSON, Richard | ISAS | JAPAN |
| DOLAG, Klaus | Universita di Padova | ITALY |
| DOLAN, Joseph | NASA/GSFC | USA |
| DOLENSKY, Markus | European Southern Observatory | GERMANY |
| DOMAINKO, Wilfried | University of Innsbruck | AUSTRIA |
| DONEA, Alina | University of Adelaide | AUSTRALIA |
| DONOVAN, Jennifer | Franklin & Marshall College | USA |
| DOPITA, Michael | Australian National University | AUSTRALIA |
| DOPPMANN, Gregory | NASA Ames Research Center | USA |
| DORCH, Søren Bertil Fabricius | The Niels Bohr Institute For Astronomy, Physics & Geophysics | DENMARK |
| DORESSOUNDIRAM, Alain | Observatoire De Paris-Meudon | FRANCE |
| DOSCHEK, George | Naval Research Physicist | USA |
| DOTTO, Elisabetta | Osservatorio Astronomico Di Roma | ITALY |
| , | | |

| Name | Organisation | Country |
|----------------------------|---|-----------------|
| DOTTORI, Horacio Alberta | Universidade Federal Do Rio Grande Do Sul | BRAZIL |
| DOUGLAS, Nigel | Kapteyn Astronomical Institute | THE NETHERLANDS |
| DOWLER, Patrick | National Research Council | CANADA |
| DOWNES, Peter | Planning NSW | AUSTRALIA |
| DOYLE, Marianne | University of Queensland | AUSTRALIA |
| DRAKE, Catherine Louise | Australian National University | AUSTRALIA |
| DRAVINS, Dainis | Lund Observatory | SWEDEN |
| DREWES, Marco | The University of New South Wales | AUSTRALIA |
| DRINKWATER, Michael | University of Queensland | AUSTRALIA |
| DRIVER, Simon | Australian National University | AUSTRALIA |
| DUBAU, Jacques | Universite Paris-Sud, LIXAM | FRANCE |
| DUBNER, Gloria | Institue Of Astronomy & Space Physics | ARGENTINA |
| DUBOIS, Pascal | CDS Observatoire De Strasbaurg | FRANCE |
| DUC, Pierre-Alain | Service D'Astrophysique CFA-Saclay | FRANCE |
| DULDIG, Marc | Australian Antarctic Division | AUSTRALIA |
| DULLEMOND, Cornelis Petrus | Max-Planck-Institute For Astrophysics | GERMANY |
| DUN, Jinping | National Astronomical Observatories, CAS | CHINA |
| DUNCAN, Bob | ATNF/CSIRO | AUSTRALIA |
| DUNN, Laura | Australian National University | AUSTRALIA |
| DUPONT, Phillipe | Quebec City Convention Centre | CANADA |
| DUPREE, Andrea K. | Smithsonian Astrophysical Observatory | USA |
| DURANT, Martin | University of Toronto | CANADA |
| DURRELL, Patrick | The Pennsylvania State University | USA |
| DUTREY, Anne | LAOG | FRANCE |
| DUVAL, Catherine | EDP Sciences | FRANCE |
| DWIVEDI, Bhola N. | Banaras Hindu University | INDIA |
| DYE, Simon | Imperial College London | UK |
| DYKS, Jaroslaw | NASA/GSFC | USA |
| DZIEMBOWSKI, Wojciech A. | Warsaw University Observatory | POLAND |
| EBELING, Harald | University Of Hawaii | USA |
| ECHEVARRIA, Juan | Universidad Nazional Autonoma De Mexico | MEXICO |
| EDRIS, Khaled | UMIST | UK |
| EDWARDS, Philip | Institute of Space & Astronautical Science | JAPAN |
| EDWARDS, Russell | University of Amsterdam | THE NETHERLANDS |
| EGAMBERDIEV, Shukhrat | Ulugh Beg Astronomical Institute of The Uzbek Academy | UZBEKISTAN |
| EGGLETON, Peter | Lawrence Livermore National Laboratory | USA |
| EHLE, Matthias | XMM-Newton SOC, ESA | SPAIN |
| EHRENFREUND, Pascale | Leiden Observatory | THE NETHERLANDS |
| EICHHORN, Guenther | Harvard-Smithsonian Center For Astrophysics | USA |
| EINICKE, Ole H. | Copenhagen University Observatory | DENMARK |
| EKERS, Ron | ATNF/CSIRO | AUSTRALIA |
| ELLINGSEN, Simon | University of Tasmania | AUSTRALIA |
| ELLIOT, James | Massachusetts Institute Of Technology | USA |
| ELLIS, Richard S | California Institute Of Technology | USA |
| ELLISON, Sara | Pontificia Universidad Catolica De Chile | CHILE |
| ELLYARD, David | Totaliola offivorolada oatolioa do offic | |
| ELMEGREEN, Bruce | IBM T.J. Watson Research Center | USA |
| ELMEGREEN, Debra | Vassar College | USA |
| EMERICH, Claude | IAS/CNRS | FRANCE |
| EMERSON, Darrel | National Radio Astronomy Observatory | USA |
| ENCRENAZ, Pierre | Observatoire De Paris/University of Paris | FRANCE |
| ENGLISH, Jayanne | The University Of Manitoba | CANADA |
| ENGVOLD, Oddbjorn | University Of Oslo | NORWAY |
| ERB, Dawn | California Institute Of Technology | USA |
| ERDOGDU, Zeynep Pirin | University of Cambridge | UK |
| ERICKSON, Edwin | NASA/AMES | USA |
| ERNEST, Allan David | University of New England | AUSTRALIA |
| ESSER, Ruth | University of Tromso | NORWAY |
| EUN-HEE, Lee | Yonsei Univ. Observatory | KOREA |
| EVANGELIDIS, Evangelos | Demokritos University | GREECE |
| EVANS, Chris | Coonabarabran Shire Council | AUSTRALIA |
| _ 7, 110, 0, 1110 | Social Salar Salar Countries | · · · · · · · |

| Name | Organisation | Country |
|--|--|--|
| EVANS, Christine | Coonabarabran Shire Council | AUSTRALIA |
| EVANS, Dafydd Wyn | Institute Of Astronomy | UK |
| EVANS, James | University of Puget Sound | USA |
| EVANS, Nancy Remage | SAO | USA |
| EVERETT, Jon | The University of New South Wales | AUSTRALIA |
| EVSTIGNEEVA, Ekaterina | University of Queensland | AUSTRALIA |
| FABBIAN, Damian | Australian National University | AUSTRALIA |
| FABIAN, Danian FABIAN, Andrew | University of Cambridge | UK |
| FABREGAT, Juan | Universidad De Valencia | SPAIN |
| FABRICE, Martins | Geneva Observatory | SWITZERLAND |
| FAIRALL, Anthony | University of Cape Town | SOUTH AFRICA |
| FALCKE, Heino | ASTRON | AUSTRALIA |
| FANG, Cheng | | CHINA |
| FARMER, Alison | Nanjing University California Institute Of Technology | USA |
| FARNIK, Frantisek | · · | CZECH REPUBLIC |
| · | The Academy of Science of the Czech Republic New York University | USA |
| FARRAR, Glennys | Jodrell Bank Observatory | UK |
| FAULKNER, Andrew | Harvard Smithsonian Center For Astrophysics | USA |
| FAZIO, Giovanni | • • | USA |
| FEDERMAN, Steven | University of Toledo | UK |
| FEIGELSON, Eric | Pennsylvania State University | GERMANY |
| FEITZINGER, Johannes Viktor | Sternwarte Bochum Planetarium | USA |
| FEKEL, Francis | Tennessee State University | USA |
| FELDMAN, Paul D | Johns Hopkins University | USA |
| FELDMEIER, John | Case Western Reserve University | GERMANY |
| FELDT, Markus | Max-Planck-Institute For Astronomy | ITALY |
| FERETTI, Luigina | Istituto Di Radioastronomia | FRANCE |
| FERLET, Roger | Institut D'Astrophysique De Paris | URUGUAY |
| FERNANDEZ, Julio Angel | Departamento De Astronomia | ITALY |
| FERRARI-TONIOLO, Marco | CNR - IASF | USA |
| FEY, Alan | U.S. Naval Observatory | |
| FIELD, David | Department Of Physics & Astronomy | DENMARK |
| FIENBERG, Rick | Sky & Telescope | USA |
| FIERRO, Julieta | Universidad Nacional Austronmade Mexico | MEXICO |
| FILIPOVIC, Miroslav | University of Western Sydney | AUSTRALIA |
| FINSTERLE, Wolfgang | University Of New Mexico | USA |
| FISCHER, Debra | UC Berkeley | USA |
| FISCHERA, Joerg | Australian National University | AUSTRALIA |
| FISHER, Alec | | AUSTRALIA |
| FLECK, Bernhard | ESA/ESTEC | USA |
| FLETCHER, Andre | Korea Astronomy Observatory | KOREA |
| FLIN, Piotr | Pedagogical University | POLAND |
| FLUDRA, Andrzej | Rutherford Appleton Laboratory | UK |
| FLURI, Dominique Martin | Institute Of Astronomy | SWITZERLAND |
| FLYNN, Chris | Tuorla Observatory | FINLAND |
| FLYNN, George | SUNY-Plattsburgh | USA |
| FOING, Bernard | ESA/ESTEC | THE NETHERLANDS |
| FORBES, Duncan | Swinburne University | AUSTRALIA |
| FOUCHET, Thierry | Observatoire De Paris-Meudon | FRANCE |
| FRANCIS, Paul | The Australian National University | AUSTRALIA |
| FRANZEN, Roger | Auspace Limited | AUSTRALIA |
| FRATERNALI, Filippo | Kapteyn Astronomical Institute | THE NETHERLANDS |
| FREBEL, Anna | Australian National University | AUSTRALIA |
| FREEDMAN, Wendy L. | Carnegie Observatories | USA |
| FREEMAN, Kenneth | Mount Stromlo Observatory | AUSTRALIA |
| FRENK, Carlos | University of Durham | UK |
| FREW, David John | Macquarie University | AUSTRALIA |
| FRIEL, Eileen | National Science Foundation | USA |
| FRITZE VON ALVENSLEBEN, Uta | University of Gottingen | GERMANY |
| FROGEL, Jay A. | NASA Headquarters | USA |
| FU, Hai | Nanjing University | CHINA |
| FUJIWARA, Akira | The Institute of Space and Astronautical Institute | JAPAN |
| FREEMAN, Kenneth FRENK, Carlos FREW, David John FRIEL, Eileen FRITZE VON ALVENSLEBEN, Uta FROGEL, Jay A. FU, Hai | Mount Stromlo Observatory University of Durham Macquarie University National Science Foundation University of Gottingen NASA Headquarters Nanjing University | AUSTRALIA UK AUSTRALIA USA GERMANY USA CHINA |

| Name | Organisation | Country |
|---------------------------------|--|--------------------|
| FUJIWARA, Tomoko | Kyoto Sangyo University | JAPAN |
| FUKAGAWA, Misato | University of Tokyo | JAPAN |
| FUKUGITA, Masataka | University of Tokyo Institute | JAPAN |
| FUKUSHIGE, Toshiyuki | University of Tokyo | JAPAN |
| FUKUSHIMA, Toshio | National Astronomical Observatory | JAPAN |
| FULCHIGNONI, Marcello | Université Denis Diderot | FRANCE |
| FULLER, Gary | UMIST | UK |
| FUNATO, Yoko | University of Tokyo | JAPAN |
| FUNES, Jose | Vatican Observatory | ITALY |
| FURUSHO, Reiko | National Astronomical Observatory | JAPAN |
| GABRIEL, Alan | Institut D'Astrophysique Spatiale | FRANCE |
| GAENSLER, Bryan | Harvard University | USA |
| GALLANT, Yves | Groupe D'Astroparticules De Montpellier | FRANCE |
| GALLOWAY, David | University of Sydney | AUSTRALIA |
| GALLOWAY, Duncan | Massachusetts Institute Of Technology | USA |
| GAMBIS, Daniel | Observatoire De Paris | FRANCE |
| GAN, W. Q. | Purple Mountain Observatory | CHINA |
| GANGADHARA, R.T. | Indian Institute of Astrophysics | INDIA |
| GAO, Yu | University of Massachusetts | USA |
| GAO, Yuping | ShaaXi Astronomical Observatory | CHINA |
| GARCIA, Rafael A | Sevice D'Astrophysique | FRANCE |
| GARCIA-ALVAREZ, David | Harvard Smithsonian Center For Astrophysics | USA |
| GARCIA-BERRO, Enrique | Universitat Politecnica De Catalunya | SPAIN |
| GARDNER, Jonathan | NASA/GSFC | USA |
| GARILLI, Bianca | IASF-MI | ITALY |
| GARRISON, Robert | University of Toronto | CANADA |
| GAUME, Ralph | U.S. Naval Observatory | USA |
| GELDERMAN, Richard | Western Kentucky University | USA |
| GELDZAHLER, Barry | NASA Headquarters | USA |
| GENOVA, Francoise | CDS Observatoire De Strasbaurg | FRANCE |
| GENTILE, Gianfranco | University of Bonn | GERMANY |
| GEORGE, Laurel | The University of New South Wales | AUSTRALIA |
| GEORGOULIS, Manolis K. | The Johns Hopkins University | USA |
| GERBALDI, Michele | Institut D'Astrophysique De Paris | FRANCE |
| GERGELY, Tomas | National Science Foundation | USA |
| GERHARD, Ortwin | University of Basel, CH | SWITZERLAND |
| GERKE, Brian | University of California | USA |
| GEZARI, Daniel | NASA/GSFC | USA |
| GIANNI, Marconi | European Southern Observatory | CHILE |
| GIBSON, Brad | Swinburne University | AUSTRALIA |
| GIL, Janusz | University of Zielona Gora | POLAND |
| GILBERT, Andrea | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| GILLINGHAM, Peter | Anglo-Australian Observatory | AUSTRALIA |
| GILMORE, Alan | University of Canterbury's Mt John Observatory | NEW ZEALAND |
| GILMORE, Gerry | University Of Cambridge | UK |
| GIMENEZ, Alvaro | ESA/ESTEC | THE NETHERLANDS |
| GIOIA, Isabella M | Consiglio Nationale Richerche (CNR) | ITALY |
| GIOVANNINI, Gabriele | Bologna University | ITALY |
| GITTI, Myriam | University of Bologna/ University of Innsbruck | ITALY |
| GIZANI, Nectaria, A.B. | National Observatory Of Athens | GREECE |
| GLAZEBROOK, Karl | Johns Hopkins University | USA |
| GLINSKI, Robert | Tennessee Tech University | USA |
| GLUSHKOVA, Elena Vyacheslavovna | Sternberg Astronomical Institute | RUSSIAN FEDERATION |
| GOEDHART, Sharmila | Hartebeesthoek Radio Astronomy Observatory | SOUTH AFRICA |
| GOMEZ, Yolanda | Universidad Nacional Autonoma De Mexico | MEXICO |
| GONDOIN, Philippe | European Space Agency | THE NETHERLANDS |
| GONTIER, Anne-Marie | Observatoire De Paris | FRANCE |
| GOODWIN, Simon | Cardiff University | UK |
| GOSS, Miller | National Radio Astronomy Observatory | USA |
| GOTTHELF, Eric | Columbia Astrophysics Laboratory | USA |
| GOUGH, Sarah | | |
| | | |

| Name | Organisation | Country |
|---------------------------|---|--------------------|
| GOVONI, Federica | University of Bologna | ITALY |
| GOW, Jan | DA Information Services | AUSTRALIA |
| GRADY, Carol A. | Eureka Scientific | USA |
| GRAHAM, John | Carnegie Institution Of Washington | USA |
| GRAINGE, Keith | Cambridge University | UK |
| GRATADOUR, Damien | Observatoire De Paris-Meudon | FRANCE |
| GRATTON, Raffaele | Osservatorio Astronomico Di Padova | ITALY |
| GRAY, Richard | Appalachian State University | USA |
| GREEN, Anne | The University of Sydney | AUSTRALIA |
| GREEN, Anne Marie | Stockholm University | SWEDEN |
| GREEN, Daniel W. E. | Harvard-Smithsonian Center For Astrophysics | USA |
| GREEN, David | University of Cambridge | UK |
| GREEN, Katie | CSIRO | AUSTRALIA |
| GREENACRE, Luke | | |
| GREENE, Thomas | NASA Ames Research Centre | USA |
| GREENHILL, Lincoln | Harvard-Smithsonian Center For Astrophysics | USA |
| GREGG, Michael | University of California | USA |
| GREGORINI, Loretta | University Of Bologna | ITALY |
| GREGORY, Philip | University of British Columbia | CANADA |
| GRETHER, Daniel | The University of New South Wales | AUSTRALIA |
| GRIFFIN, R. Elizabeth | Dominion Astrophysical Observatory | CANADA |
| GRIFFITH, Caitlin | | |
| GRIFFITHS, Louise | The University of NSW | AUSTRALIA |
| GRIFFITHS, Richard | Carnegie Mellon University | USA |
| GROENEWEGEN, Martin | Institute Of Astronomy | BELGIUM |
| GRONWALL, Caryl | Pennsylvania State University | USA |
| GROOT, Paul | University Of Nijmegen | THE NETHERLANDS |
| GROSBOL, Preben | European Southern Observatory | GERMANY |
| GROVES, Brent | Australian National University | AUSTRALIA |
| GU, Sheng-Hong | National Astronomical Observatories, CAS | CHINA |
| GUDIKSEN, Boris | Institute For Solar Physics, KVA | SWEDEN |
| GUEDEL, Manuel | Paul Scherrer Institut | SWITZERLAND |
| GUIDO, Garay | University Of Chile | CHILE |
| GUINAN, Edward | Villanova University | USA |
| GULL, Theodore | NASA/GSFC | USA |
| GUPTA, Yashwant | National Centre For Radio Astrophysics TIFR | INDIA |
| GUROVICH, Sebastian | Australian National University | AUSTRALIA |
| GURSHTEIN, Alexander | Russian Academy Of Sciences | USA |
| GURVITS, Leonid | Joint Institute For VLBI, Europe | THE NETHERLANDS |
| GURZADYAN, Vahe G. | Yerevan Research Institute | ARMENIA |
| GUSEV, Alexander | Kazan State University | RUSSIAN FEDERATION |
| GUSTAFSON, Bo | University Of Florida | USA |
| GVARAMADZE, Vasilii | | GEORGIA |
| HABER, Deborah | University Of Colorado | USA |
| HABING, Harm | Sterrewacht | THE NETHERLANDS |
| HADJIDEMETRIOU, John | University of Thessaloniki | GREECE |
| HAEUSSLER, Boris | Max-Planck-Institute For Astronomy | GERMANY |
| HAISCH, Karl | University of Michigan | USA |
| HALL, Peter | ATNF/CSIRO | AUSTRALIA |
| HALLIDAY, Claire | Astronomical Observatory Of Padova | ITALY |
| HALZEN, Francis | University of Wisconsin | USA |
| HAMADACHE, Clarisse | CEA Saclay | FRANCE |
| HAMAGUCHI, Kenji | NASA/GSFC/IHEA | USA |
| HAN, JinLin | National Astronomical Observatories, CAS | CHINA |
| HAN, Wonyong | Korea Astronomy Observatory | KOREA |
| HAN, Zhanwen | Yunnan Observatory | CHINA |
| HANADO, Yuko | Communications Research Laboratory | JAPAN JAPAN |
| HANAOKA, Yoichiro | National Astronomical Observatory | JAPAN CANADA |
| HANES, David | Queen's University | USA |
| HANNIKAINEN Diana Carina | Space Telescope Science Institute | FINLAND |
| HANNIKAINEN, Diana Carina | University Of Helsinki | INLAND |

| Name | Organisation | Country |
|-----------------------|--|-----------------|
| HARA, Tetsuya | Kyoto Sangyo University | JAPAN |
| HARDING, Paul | Case Western Reserve University | USA |
| HARKNESS, Lindsay | Auspace Limited | AUSTRALIA |
| HARNETT, Julienne | University of Technology Sydney | AUSTRALIA |
| HARPER, Graham | University of Colorado | USA |
| HARRA, Louise | University College London | UK |
| HARRIGAN, Bill | Integral Energy | AUSTRALIA |
| HARRIS, Alan | Space Science Institute | USA |
| HARRIS, Daniel | Smithsonian Astrophysical Observatory | USA |
| HARRISON, Craig | Australian National University | AUSTRALIA |
| HARRUS, Ilana | USRA/NASA/GSFC | USA |
| HART, Robert G | National Research Council | CANADA |
| HARTKOPF, William | U.S. Naval Observatory | USA |
| HARTLEY, Louise | Space Telescope Science Institute | USA |
| HARTMANN, Lee | Smithsonian Astrophysical Observatory | USA |
| HARVEY, Paul | University of Texas | USA |
| HASAN, Hashima | NASA Headquarters | USA |
| HASHIMOTO, Osamu | Gunma Astronomical Observatory | JAPAN |
| HASINGER, Guenther | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| HAWLEY, Suzanne | University of Washington | USA |
| HAYASAKI, Kimitake | Hokkaido University | JAPAN |
| HAYES, Jeffrey IE | NASA Headquarters | USA |
| HAYMAN, Douglas | CSIRO | AUSTRALIA |
| HAYNES, Raymond | | AUSTRALIA |
| HAYNES, Roger | Anglo-Australian Observatory | AUSTRALIA |
| HEARNSHAW, John | University of Canterbury | NEW ZEALAND |
| HEBRARD, Guillaume | Institut D'Astrophysique De Paris | FRANCE |
| HEDEDAL, Christian | Copenhagen University | DENMARK |
| HEGGIE, Douglas | University of Edinburgh | UK |
| HEIDT, Jochen | Landessternwarte | GERMANY |
| HEINZEL, Petr | The Academy of Science of the Czech Republic | CZECH REPUBLIC |
| HELFAND, David J. | Columbia Astrophysics Laboratory | USA |
| HELMER, Leif | Copenhagen University Observatory | DENMARK |
| HELMI, Amina | Astronomical Institute Utrecht | THE NETHERLANDS |
| HELMUT, Jerjen | Australian National University | AUSTRALIA |
| HELOU, George | California Institute Of Technology | USA |
| HEMENWAY, Mary Kay | The University of Texas At Austin | USA |
| HEMPEL, Marc | Hamburger Sternwarte | GERMANY |
| HENBEST, Nigel | Pioneer Productions | UK |
| HENKEL, Christian | Max-Planck-Institute For Radioastronomy | GERMANY |
| HENNING, Thomas | Max-Planck-Institute For Astronomy | GERMANY |
| HENSLER, Gerhard | University Of Kiel | GERMANY |
| HESSELS, Jason | McGill University | CANADA |
| HIBBARD, John | National Radio Astronomy Observatory | USA |
| HIDAS, Marton | The University of New South Wales | AUSTRALIA |
| HIDAYAT, Bambang | Bosscha Obsservatory | INDONESIA |
| HILDITCH, Ronald | University of St Andrews | UK |
| HILL, Frank | National Solar Observatory | USA |
| HILL, Tracey | The University of New South Wales | AUSTRALIA |
| HILL, Vanessa | Observatoire De Paris-Meudon | FRANCE |
| HILLEBRANDT, Wolfgang | Max-Planck-Institute For Astrophysics | GERMANY |
| HILLENBRAND, Lynne | California Institute Of Technology | USA |
| HILTON, James | U.S. Naval Observatory | USA |
| HINCE, Brendon | Integral Energy | AUSTRALIA |
| HIRABAYASHI, Hisashi | The Institute of Space and Astronautical Science | JAPAN |
| HIRAI, Masanori | Fukuoka University Of Education | JAPAN |
| HIRANO, Naomi | ASIAA | TAIWAN |
| HIRASHITA, Hiroyuki | Nagoya University | JAPAN |
| HIROI, Kumiko | University of Tsukuba | JAPAN |
| HITCHCOCK, James | | |
| HO, Luis C | Carnegie Observatories | USA |

| Name | Organisation | Country |
|----------------------------------|--|--------------------|
| HOARE, Melvin | University of Leeds | UK |
| HOBBS, George | ATNF/CSIRO | AUSTRALIA |
| HOEKSTRA, Henk | Canadian Institute For Theoretical Astrophysics | CANADA |
| HØG, Erik | Copenhagen University Observatory | DENMARK |
| HOHENKERK, Catherine | HM Nautical Almanac Office | UK |
| HOLE, Matthew John | University of Sydney | AUSTRALIA |
| HOLLER, Christian | Cambridge University | UK |
| HOLLOW, Robert | Tara Anglican School for Girls | AUSTRALIA |
| HOLZWARTH, Volkmar | University of St. Andrews | UK |
| HONDA, Mitsuhiko | Subaru Telescope, NAOJ | USA |
| HONDA, Satoshi | National Astronomical Observatory | JAPAN |
| HONG, Xiaoyu | Shanghai Astronomical Observatory | CHINA |
| HORNE, Keith | St.Andrews University | UK |
| HOSFORD, Peter | Energy Australia | AUSTRALIA |
| HOSOKAWA, Mizuhiko | Communications Research Laboratory | JAPAN |
| HOTAN, Aidan | Swinburne Centre for Astrophysics & Supercomputing | AUSTRALIA |
| HOU, Jinliang | Shanghai Astronomical Observatory | CHINA |
| HOUDASHELT, Mark | Johns Hopkins University | USA |
| HOUGH, James | University of Hertfordshire | UK |
| HOWARTH, Ian | University College London | UK |
| HOWELL, Ellen | Arecibo Observatory | USA |
| HOWSON, Phillip | CSIRO | AUSTRALIA |
| HUAN, Nguyen Dinh | Vinh University | VIETNAM |
| HUANG, Cheng | Shanghai Astronomical Observatory | CHINA |
| HUANG, Guangli | Purple Mountain Observatory | CHINA |
| HUANG, Hui-Chun | National Taiwan Normal University | TAIWAN |
| HUANG, Jie Hao | Nanjing University | CHINA |
| HUANG, Keliang | Nanjing Normal University | CHINA |
| HUCHRA, John | Harvard-Smithsonian Center For Astrophysics | USA |
| HUEBNER, Walter F. | Southwest Research Institute (SWRI) | USA |
| HUENEMOERDER, David P. | MIT | USA |
| HUGHES, Annie | Astronomy Magazine | AUSTRALIA |
| HUGHES, John P. | Rutgers University | USA |
| HUGHES, Stephen | School of Physical And Chemical Sciences | AUSTRALIA |
| HUI, Chung Yue | The University of Hong Kong | HONG KONG |
| HUI, Lam | Fermilab | USA |
| HULTH, Per Olof | Stockholm University | SWEDEN GERMANY |
| HÜNSCH, Matthias | University Of Kiel | AUSTRALIA |
| HUNSTEAD, Richard | The University Of NCW | AUSTRALIA |
| HUNT, Maria HUNTEN, Donald M. | The University of NSW | USA |
| HUNTER, Christopher | University of Arizona Florida State University | USA |
| HURLEY-KELLER, Denise | Case Western Reserve University | USA |
| HUSSAIN, Gaitee A.J. | Harvard Smithsonian Center For Astrophysics | USA |
| HUT, Piet | Institute For Advanced Study | USA |
| HUYNH, Helene | institute i of Advanced Study | |
| HUYNH, Minh | Australian National University | AUSTRALIA |
| HYLAND, A R Harry | James Cook University | AUSTRALIA |
| IKEUCHI, Satoru | Nagoya University | JAPAN |
| ILLINGWORTH, Garth | University of California | USA |
| ILYASOV, Yuri | Pushchino Radio Astronomical Observatory | RUSSIAN FEDERATION |
| INOUE, Kaiki Taro | National Astronomical Observatory | JAPAN |
| INOUE, Makoto | National Astronomical Observatory | JAPAN |
| IP, Wing-Huem | NCU Astronomy Institute | TAIWAN |
| IPING, Rosina Cornelia | Catholic University Of America | USA |
| IRELAND, Jack | NASA/GSFC | USA |
| IRELAND, Michael | The University of Sydney | AUSTRALIA |
| ISAAK, George | University of Birmingham | UK |
| ISHII, Takako | Kyoto University | JAPAN |
| ISOBE, Naoki | National Space Development Agency | JAPAN |
| ISOBE, Syuzo | National Astronomical Observatory | JAPAN |
| | | |

| Name | Organisation | Country |
|---------------------------|---|--------------------|
| ISRAEL, Gian Luca | Osservatorio Astronomico Di Roma | ITALY |
| ISRAELIAN, Garik | Instituto De Astrofisica De Canarias | SPAIN |
| ISSUR, Nalini Heeralall | University of Mauritius | MAURITIUS |
| ISTOMIN, Yakov | Lebedev Physical Institute | RUSSIAN FEDERATION |
| IVACHEFF, Alexey | SBS Radio, Sydney | AUSTRALIA |
| IVANS, Inese | California Institute Of Technology | USA |
| IWATA, Ikuru | Kyoto University | JAPAN |
| IYE, Masanori | National Astronomical Observatory | JAPAN |
| IZMODENOV, Vladislav | Moscow State University | RUSSIAN FEDERATION |
| JABLONKA, Pascale | Observatoire De Paris-Meudon | FRANCE |
| JACKSON, Bernard | University of California | USA |
| JACKSON, Carole | ATNF/CSIRO | AUSTRALIA |
| JACKSON, James | Boston University | USA |
| JACKSON, Noel William | The University of Southern Queensland | AUSTRALIA |
| JACOB, Andrew | The University of Sydney | AUSTRALIA |
| JACOBS, Christopher S. | Jet Propulsion Laboratory | USA |
| JACOBSON, Robert A. | Jet Propulsion Laboratory | USA |
| JACOBY, Bryan | California Institute Of Technology | USA |
| JAFFE, Andrew | Imperial College London | UK |
| JAGEMANN, Thomas | TUM Garching E15 | GERMANY |
| JAIN, Rajmal | Physical Research Laboratory | INDIA |
| JAMES, Geoff | CSIRO | AUSTRALIA |
| JANKA, Hans-Thomas | Max-Planck-Institute For Astrophysics | GERMANY |
| JARDINE, Moira | University of St Andrews | UK |
| JARRETT, Thomas | IPAC/Caltech/JPL | USA |
| JARVIS, Peter | Rayforge Services | AUSTRALIA |
| JARZEBOWSKI, Tadeusz | Wroclaw University | POLAND |
| JAUNCEY, David | ATNF/CSIRO | AUSTRALIA |
| JAYAWARDHANA, Ray | University of Michigan | USA |
| JEFFERIES, Stuart | University of New Mexico | USA |
| JENKINS, Adrian | Durham University | UK |
| JENKINS, Edward B | Princeton University | USA |
| JENNISKENS, Peter | SETI Institute | USA |
| JERZYKIEWICZ, Mikolaj | The Wroclaw University | POLAND |
| JEWELL, Philip R. | National Radio Astronomy Observatory | USA |
| JI, Jianghui | Purple Mountain Observatory | CHINA |
| JIMENEZ REYES, Sebastian | Instituto De Astrofisica De Canarias | SPAIN |
| JING, Yipeng | Shanghai Astronomical Observatory | CHINA |
| JOCHI, Shigeru | National Kaohsiung First University Of Science & Technology | TAIWAN |
| JOHNS, Peter | Wadco Lighting | AUSTRALIA |
| JOHNSON, Jennifer | DAO/HIA/NRC | CANADA |
| JOHNSON, Kevin | National Museum of Science & Industry | UK |
| JOHNSON, Torrence V. | Jet Propulsion Laboratory | USA |
| JOHNSTON, Kenneth | U.S. Navel Observatory | USA |
| JOHNSTON, Simon | The University of Sydney | AUSTRALIA |
| JOHNSTON-HOLLITT, Melanie | Leiden Observatory | THE NETHERLANDS |
| JONAS, Justin | Rhodes University | SOUTH AFRICA |
| JONATHAN, Ferreira | Laboratoire D'Astrophysique De Grenoble | FRANCE |
| JONCAS, Gilles | Universite Laval | CANADA |
| JONES, Heath | Australian National University | AUSTRALIA |
| JONES, Morris | Spacedaily.com | AUSTRALIA |
| JONES, Paul | ATNF/CSIRO | AUSTRALIA |
| JORGENSEN, Jes Kristian | Leiden Observatory | THE NETHERLANDS |
| JOSHI, Bhal Chandra | National Center For Radio Astrophysics TIFR | INDIA |
| JOSS, Paul C | MIT | USA |
| JUGAKU, Jun | Research Institute Of Civilization | JAPAN |
| JULIAN, Warren | The University Of Sydney | AUSTRALIA |
| JUST, Andreas | Astroniches Rechen-Institut | GERMANY |
| KAASTRA, Jelle | Space Research Organization Netherlands | THE NETHERLANDS |
| KAIFU, Norio | National Astronomical Observatory | JAPAN |
| KALABANOV, Sergei | Kazan State University | RUSSIAN FEDERATION |
| | | |

| Name | Organisation | Country |
|--------------------------------|---|---------------------|
| KALKOFEN, Wolfgang | Harvard Smithsonian Center For Astrophysics | USA |
| KALLMAN, Timothy | Laboratory For High Energy Astrophysics | USA |
| KAMAZAKI, Takeshi | Nobeyama Radio Observatory | JAPAN |
| KAMEYA, Osamu | National Astronomical Observatory | JAPAN |
| KAMP, Inga | Leiden Observatory | THE NETHERLANDS |
| KANG, Young Woon | Sejong University | KOREA |
| KAPLAN, David | California Institute Of Technology | USA |
| KAPLAN, George | U.S. Naval Observatory | USA |
| KARAMI, Kayoomars | Institute For Advanced Studies In Basic Sciences (IASBS) | IRAN |
| KARASTERGIOU, Aris | The University of Sydney | AUSTRALIA |
| KARGALTSEV, Oleg | | USA |
| , • | Pennsylvania State University | AUSTRALIA |
| KARICK, Arna May | The University of Melbourne | CANADA |
| KASPI, Victoria | McGill University | USA |
| KASSIM, Namir | Naval Research Laboratory | USA |
| KASSIN, Susan | The Ohio State University | |
| KATGERT-MERKELIJN, Jeannette K | Leiden Observatory | THE NETHERLANDS |
| KAUFFMANN, Guinevere | Max-Planck-Institute For Astrophysics | GERMANY |
| KAWABATA, Kin-Aki | Nagoya University | JAPAN |
| KAWAKITA, Hideyo | Gunma Astronomical Observatory | JAPAN |
| KAWALER, Steven | Iowa State University | USA |
| KAWANO, Nobuyuki | National Astronomical Observatory | JAPAN |
| KAWASAKI, Wataru | ASIAA | TAIWAN |
| KAWKA, Adela | Murdoch University | AUSTRALIA |
| KEAY, Colin | University of Newcastle | AUSTRALIA |
| KEDZIORA-CHUDCZER, Lucyna | The University of Sydney | AUSTRALIA |
| KELLER, Horst Uwe | Max-Planck-Institute For Astronomy | GERMANY |
| KELLERMANN, Kenneth | National Radio Astronomy Obsrvatory | USA |
| KEMBHAVI, Ajit | Inter-University Centre For Astronomy And Astrophysics | INDIA |
| KENNEDY, Gareth | Monash University | AUSTRALIA |
| KENNEY, Jeff | Yale University | USA |
| KERINS, Eamonn | Liverpool John Moores University | UK |
| KERVELLA, Pierre | European Southern Observatory | CHILE |
| KESTEVEN, Michael | ATNF/CSIRO | AUSTRALIA |
| KHACHIKIAN, Edward | Byurakan Astrophysical Observatory | ARMENIA |
| KHANPOUR, Mona | , | |
| KIJAK, Jarek | University of Zielona Gora | POLAND |
| KILBORN, Virginia | University of Manchester | UK |
| KILLEEN, Neil | Australia Telescope National Facility | AUSTRALIA |
| KILMARTIN, Pam | University of Canterbury's Mt John Observatory | NEW ZEALAND |
| KIM, Bong Gyu | Korea Astronomy Observatory | KOREA |
| KIM, Ho-II | Korea Astronomy Observatory | KOREA |
| KIM, Kee-Tae | University of Illinois | USA |
| KIM, Sang Chul | Korea Astronomy Observatory | KOREA |
| KIM, Sungsoo S | Kyung Hee University | KOREA |
| | National Astronomical Observatory | JAPAN |
| KINOSHITA, Daisuke | | GERMANY |
| KIRK, John | Max-Planck-Institut Fuer Kernphysik | SPAIN |
| KIRSCH, Marcus G. F. | European Space Agency | USA |
| KIRSHNER, Robert | Harvard-Smithsonian Center For Astrophysics | AUSTRALIA |
| KISS, Laszlo | University of Sydney | |
| KISSELEVA EGGLETON, Ludmila | St. Mary's College Of California | USA |
| KISSELL, Kenneth E. | University of Maryland | USA |
| KJELDSEN, Hans | Aarhus University | DENMARK |
| KLAMER, Ilana Joanne | The University of Sydney | AUSTRALIA |
| KLEIN, Michael J. | Jet Propulsion Laboratory | USA |
| KLEIN, Richard | University of California | USA |
| KLINGLESMITH, Daniel | New Mexico Institute Of Mining & Technology | USA |
| KNAACK, Reto | Institute Of Astronomy, ETH Zurich | SWITZERLAND |
| KNEE, Lewis | Herzberg Institute Of Astrophysics | CANADA |
| KNEZEVIC, Zoran | Astronomical Observatory | SERBIA & MONTENEGRO |
| KNIGHT, Haydon | Centre For Astrophysics & Supercomputing, Swinburne University Of | AUSTRALIA |
| KNIGHT, Sue | Sutherland Astronomical Society | AUSTRALIA |
| | • | |

| Name | Organisation | Country |
|----------------------------|---|--------------------|
| KNOCK, Stuart | The University of Sydney | AUSTRALIA |
| KNODLSEDER, Jurgen | Centre D'Etude Spatiale Des Rayonnements | FRANCE |
| KO, Chung-Ming | National Central University | TAIWAN |
| KOBAYASHI, Chiaki | Max-Planck-Institute For Astrophysics | GERMANY |
| KOCHHAR, Rajesh | National Institute Of Science, Technology & Development Studies | INDIA |
| KOEN, Chris | , | SOUTH AFRICA |
| KOESTER, Detlev | University of Kiel | GERMANY |
| KOFIOTIS, Nicki | Similarly street | |
| KOJIMA, Masayoshi | Nagoya University | JAPAN |
| KOMOSSA, Stefanie | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| KOO, Bon-Chul | Seoul National University | KOREA |
| KOO, David | University of California | USA |
| KORIBALSKI, Baerbel Silvia | ATNF/CSIRO | AUSTRALIA |
| KORMENDY, John | University of Texas | USA |
| KOTHES, Roland | Dominion Radio Astrophysical Observatory | CANADA |
| KOTNIK-KARUZA, Dubravka | University of Rijeka | CROATIA |
| KOUCHI, Akira | Hokkaido University | JAPAN |
| KOUWENHOVEN, Thijs | University of Amsterdam | THE NETHERLANDS |
| KOVETZ, Attay | Tel Aviv University | ISRAEL |
| KOWALSKI, Michael | Naval Research Laboratory | USA |
| KOYAMA, Katsuji | Kyoto University | JAPAN |
| KOZAI, Yoshihide | Gunma Astronomical Observatory | JAPAN |
| KRAAN-KORTEWEG, Renée C. | University Of Guanajuato | MEXICO |
| KRAJNOVIC, Davor | Leiden Observatory | THE NETHERLANDS |
| KRAMER, Busaba | National Science & Technology Development Agency | THAILAND |
| KRAMER, Michael | University of Manchester | UK |
| KRANZ, Kelly Ann | Australian National University | AUSTRALIA |
| KRAUSE, Oliver | Max-Planck-Institute For Astronomy | GERMANY |
| KRAVTSOV, Valery | Sternberg Astronomical Institute | RUSSIAN FEDERATION |
| KRIST, John | Space Telescope Science Institute | USA |
| KSANFORMALITY, Leonid | Moscow Space Research Institute | RUSSIAN FEDERATION |
| KUAN, Yi-Jehng | ASIAA | TAIWAN |
| KUBAT, Jiri | Astronomical Institute Ondrejov | CZECH REPUBLIC |
| KUCHNER, Marc | Smithsonian Astrophysical Observatory | USA |
| KUHN, Jeff | University Of Hawaii | USA |
| KUIJKEN, Konrad | Leiden Observatory | THE NETHERLANDS |
| KULKARNI, Shrinivas R. | California Institute Of Technology | USA |
| KULKARNI, Varsha | University of South Carolina | USA |
| KUMKOVA, Irina | Institute Of Applied Astronomy RAS | RUSSIAN FEDERATION |
| KUNCIC, Zdenka | University of Sydney | AUSTRALIA |
| KURTZ, Donald | University of Central Lancashire | UK |
| KUSANO, Kanya | Hiroshima University | JAPAN |
| KUZANYAN, Kirill | Izmiran - Heliophysics | RUSSIAN FEDERATION |
| LABBE, Ivo | Leiden Observatory | THE NETHERLANDS |
| LACERDA, Pedro | Leiden Observatory | THE NETHERLANDS |
| LACEY, Christina | University of South Carolina | USA |
| LACOUR, Sylvestre | Observatoire De Paris | FRANCE |
| LADD, Edwin | Bucknell University | USA |
| LAGRANGE, Anne-Marie | Laboratoire D'Astrophysique De Grenoble | FRANCE |
| LAH, Philip | Australian National University | AUSTRALIA |
| LAI, Dong | Cornell University | USA |
| LAI, Judy | | ED ANOE |
| LAMBERT, Sebastien | Observatoire De Paris | FRANCE |
| LANCON, Ariane | Universite Louis Pasteur | FRANCE |
| LANDI, Enrico | ARTEP, Inc. | USA |
| LANDINI, Massimo | University of Florence | ITALY |
| LANDOLT, Arlo | Louisiana State University | USA |
| LARSEN, Soren S. | European Southern Observatory | GERMANY |
| LARSON, Stephen | University of Arizona | USA |
| LATTANZIO, John | Monash University | AUSTRALIA |
| LATTIMER, James | State University of New York At Stony Brook | USA |

| Name | Organisation | Country |
|--------------------------------------|--|--------------------|
| LAUBSCHER, Bryan | Los Alamos National Laboratory | USA |
| LAUNHARDT, Ralf | Max-Planck-Institute For Astronomy | GERMANY |
| LAUREIJS, Rene | ESA/ESTEC | THE NETHERLANDS |
| LAWRENCE, Jon | The University of New South Wales | AUSTRALIA |
| LAWSON, Peter | Jet Propulsion Laboratory | USA |
| LAWSON, Warrick | The University of New South Wales | AUSTRALIA |
| LAZENDIC, Jasmina | Harvard-Smithsonian Center For Astrophysics | USA |
| LAZZARO, Daniela | National Observatory | BRAZIL |
| LEAHY, Denis | University of Calgary | CANADA |
| LEE, Chang-Hwan | Pusan National University | KOREA |
| LEE, Chang Won | Korea Astronomy Observatory | KOREA |
| LEE, Dae Hee | Korea Advanced Institue Of Science & Technology | KOREA |
| LEE, Hee-Won | Sejong University | KOREA |
| LEE, Jae-Joon | Seoul National University | KOREA |
| LEE, Jeong Ae | Kyungpook National University | KOREA |
| LEE, Julia | MIT | USA |
| LEE, Kang Hwan | Seoul National University | KOREA |
| LEE, Sang-Gak | Seoul National University | KOREA |
| LE FEVRE, Olivier | Laboratoire D'Astrophysique De Marseille | FRANCE |
| LE FLOC'H, Emeric | CEA Saclay | FRANCE |
| LEHTO, Harry J. | Tuorla Observatory, Turku University | FINLAND |
| LEIBACHER, John | National Solar Observaroty | USA |
| LEINERT, Christoph | Max-Planck-Institute For Astronomy | GERMANY |
| LEISAWITZ, David | NASA/GSFC | USA |
| LEISTRA, Andrea | Steward Observatory | USA |
| LEITHERER, Claus | Space Telescope Science Institute | USA |
| LELIWA-KOPYSTYNSKI, Jack | Space relescope science institute | 33.1 |
| LEMMON, Mark | Texas A&M University | USA |
| LEPSON, Jaan K | University of California | USA |
| LEUNG, Hoi Tak | Offiversity of Camornia | |
| LEUNG, Patrick Mingyin | The University of New South Wales | AUSTRALIA |
| LEUNG, Po | University Of Hong Kong | HONG KONG |
| LEVCHAKOV, Serguei A. | loffe Physico-Technical Institute | RUSSIAN FEDERATION |
| LEVIN, Yury | University Of Toronto | CANADA |
| LEWIN, Walter | MIT | USA |
| LEWIS, Dion | University of Tasmania | AUSTRALIA |
| LEWIS, Geraint | University of Sydney | AUSTRALIA |
| LEYASSEUR-REGOURD, A. Chantal | University of Paris | FRANCE |
| LI, Bo | University of Sydney | AUSTRALIA |
| LI, Elizabeth Charlene | Hampton Park Medical Centre | AUSTRALIA |
| LI, Guangyu | Purple Mountain Observatory | CHINA |
| LI, Guoping | Nanjing Institute Of Astronomical Optics & Technology | CHINA |
| LI, Hui | Purple Mountain Observatory | CHINA |
| LI, Jinling | Shanghai Astronomical Observatory | CHINA |
| LI, Wei | National Astronomical Observatories, CAS | CHINA |
| LI, Xiangdong | Nanjing University | CHINA |
| LI, Yuexing | Columbia University | USA |
| LIAO, Xinhao | Shanghai Astronomical Observatory | CHINA |
| · | · | NORWAY |
| LIE-SVENDSEN, Oystein LIEBERT, James | Norwegian Defence Research Establishment Steward Observatory | USA |
| LIEDERT, James LIEDAHL, Duane | Lawrence Livermore National Laboratory | USA |
| LILJE, Per B | • | NORWAY |
| · | University Of Oslo | USA |
| LILLIE, Charles F. | Northrop Grumman Space Technology | TAIWAN |
| LIN Ganghua | Academia Sinica (ASIAA) | CHINA |
| LIN, Ganghua | National Astronomical Observatories, CAS | USA |
| LIN, Robert P | University of California | UK |
| LINDE, Tony | University of Leicester | SWEDEN |
| LINDER Eric | Lund Observatory | USA |
| LINDER, Eric | Berkeley Laboratory | SPAIN |
| LING, Josefina F. | Observatorio Astronómico Ramón María Aller | USA |
| LINSKY, Jeffrey L. | University Of Colorado | USA |

| Name | Organisation | Country |
|--------------------------------|---|-----------------------|
| LINTON, Mark | US Naval Research Laboratory | USA |
| LINZ, Hendrik | TLS Tautenburg | GERMANY |
| LIPKA, Robert | University of Tasmania | AUSTRALIA |
| LIPTHAY, Veronica | Chivotony of Tubinama | |
| LISSE, Carey | University of Maryland | USA |
| LITTLE, Brett Anthony | Australian National University | AUSTRALIA |
| LITTLE, Susanne | ATNF/CSIRO | AUSTRALIA |
| LITTLETON, John | West Virginia University | USA |
| LIU, Lin | Nanjing University | CHINA |
| LIU, Michael | University of Hawaii | USA |
| LIU, Sheng-Yuan | ASIAA | TAIWAN |
| LLOYD, James | California Institute Of Technology | USA |
| LLOYD-EVANS, Thomas Harry Hope | University of Nottingham | UK |
| LOBEL, Alex | Smithsonian Astrophysical Observatory | USA |
| LOBO, Catarina | Da Universidade Do Porto | PORTUGAL |
| LOCKMAN, Felix J. | National Radio Astronomy Observatory | USA |
| LOCSEI, Janos Tobias | The University of Melbourne | AUSTRALIA |
| LOH, Eugene | University of Maryland | USA |
| LOMB, Nick | Sydney Observatory/Powerhouse Museum | AUSTRALIA |
| LOMMEN, Andrea | Franklin & Marshall College | USA |
| LONDISH, Diana | The University of Sydney | AUSTRALIA |
| LONG, Knox S. | Space Telescope Science Institute | USA |
| LONGCOPE, Dana | Montana State University | USA |
| LONGMORE, Andrew | UK Astronomy Technology Centre | UK |
| LONGMORE, Steven Neil | The University of New South Wales | AUSTRALIA |
| LONSDALE, Carol J. | IPAC/Caltech | USA |
| LÓPEZ, Dan | New Mexico Tech | USA |
| LOPEZ-CANIEGO, Marcos | Instituto De Fisica Cantabria | SPAIN |
| LÓPEZ-SÁNCHEZ, Ángel Rafael | Instituto De Astrofisica De Canarias | SPAIN |
| LORENZ, Ralph | University Of Arizona | USA |
| LORENZEN, Dirk H | Deutschlandfunk | GERMANY |
| LORIMER, Duncan | University of Manchester | UK |
| LOU, Yu-Qing | Tsinghua University | CHINA |
| LOVELL, Jim | ATNF/CSIRO | AUSTRALIA |
| LU, Ye | National Astronomical Observatories, CAS | CHINA |
| LUBIN, Lori | University of California | USA |
| LUBOWICH, Donald | Hofstrsa University | USA |
| LUCAS, Philip | University of Hertfordshire | UK |
| LUCAS, Robert | The University of Sydney | AUSTRALIA |
| LUCAS, Robert | IRAM | FRANCE |
| LUHMAN, Kevin | Smithsonian Astrophysical Observatory | USA |
| LUMSDEN, Stuart | University of Leeds | UK |
| LUO, Qinghuan | The University of Sydney | AUSTRALIA |
| LUPISHKO, Dimitrij | Kharkiv National University | UKRAINE |
| LYNE, Andrew | University of Manchester | UK |
| LYO, Aran | The University of New South Wales | AUSTRALIA |
| LYUBARSKY, Yuri | Ben-Gurion University | ISRAEL |
| M.Z JASSUR, Davoud | Tabriz University | IRAN |
| MA, Chopo | NASA/GSFC | USA |
| MA, Yuehua | Purple Mountain Observatory | CHINA |
| MACCAGNI, Dario | IASF-MI | ITALY |
| MACEY, Richard | The Sydney Morning Herald | AUSTRALIA |
| MACHIDA, Masahiro | National Astronomical Observatory | JAPAN |
| MACIAS-PEREZ, Juan Francisco | Laboratoire De Physique Subatomique Et Cosmologie | FRANCE |
| MACKIE, Glen | Swinburne University of Technology | AUSTRALIA |
| MACQUART, Jean-Pierre | Kapteyn Astronomical Institute | THE NETHERLANDS |
| MACRI, Lucas | National Optical Astronomy Observatory | USA |
| MADDISON, Sarah | Swinburne University | AUSTRALIA |
| MADORE, Barry | | |
| - , , | Caltech | USA |
| MADSEN, Claus | Caltech European Southern Observatory | USA GERMANY USA |

| Name | Organisation | Country |
|-----------------------------------|--|--------------------|
| MAJEWSKI, Steven | University Of Virginia | USA |
| MAKINO, Junichiro | University Of Tokyo | JAPAN |
| MALIN, David | Anglo-Australian Observatory | AUSTRALIA |
| MALKOV, Oleg | Institute Of Astronomy | RUSSIAN FEDERATION |
| MALOFEEV, Valery | Russian Academy Of Science | RUSSIA |
| MALOV, Igor | Pushchino Radio Astronomical Observatory | RUSSIA |
| MANCHESTER, Richard | ATNF/CSIRO | AUSTRALIA |
| MANDRINI, Cristina H | Institute Of Astronomy | ARGENTINA |
| MANN, Ingrid | Muenster University | GERMANY |
| MANSFIELD, Simon | Spacedaily.Com | AUSTRALIA |
| MAO, Rui-Qing | Purple Mountain Observatory | CHINA |
| MAO, Shude | Jodrell Bank Observatory | UK |
| MARASTON, Claudia | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| MARCHIORI, Gianpietro | European Industrial Engineering | ITALY |
| MARDLING, Rosemary | Monash University | AUSTRALIA |
| MARDONES, Diego | Universidad De Chile | CHILE |
| MARGOT, Jean-Luc | California Institute Of Technology | USA |
| MARKWICK, Andrew | NASA Ames Research Center | USA |
| MAROM, Ariel | The University of Sydney | AUSTRALIA |
| MARSCH, Eckart | Max-Planck-Institute For Astronomy | GERMANY |
| MARSDEN, Brian | Smithsonian Astrophysical Observatory | USA |
| MARSDEN, Richard G | ESA/ESTEC | THE NETHERLANDS |
| MARSDEN, Stephen | Observatoire Midi-Pyrenees | FRANCE |
| MARTIN, Christopher | California Institute Of Technology | USA |
| MARTIN, William | National Institute Of Standards & Technology | USA |
| MARVEL, Kevin B. | American Astronomical Society | USA |
| MASON, Brian | U.S. Naval Observatory | USA |
| MASSET, Frederic | CEA Saclay | FRANCE |
| MASTERS, Karen | Cornell University | USA |
| MASTRANO, Alpha | University of Melbourne | AUSTRALIA |
| MATEO, Mario | University of Michigan | USA |
| MATHIEU, Anne | Instituto De Astrofisica De Andalucia | SPAIN |
| MATHYS, Gautier | European Southern Observatory | CHILE |
| MATSAKIS, Demetrios | U.S. Naval Observatory | USA |
| MATSON, Dennis | Jet Propulsion Laboratory | USA |
| MATSUDA, Takuya | Kobe University | JAPAN |
| MATSUSHITA, Kyoko | Tokyo University of Science | JAPAN |
| MATTHEWS, Brenda | University of California | USA |
| MATVEYENKO, Leonid | Space Research Institute | RUSSIAN FEDERATION |
| MAUCH, Thomas | The University of Sydney | AUSTRALIA |
| MCADAM, W. Bruce | The University of Sydney | AUSTRALIA |
| MCCALLUM, Jamie Nigel | University of Tasmania | AUSTRALIA |
| MCCARTHY, Dennis | U. S. Naval Observatory | USA |
| MCCLOUGHAN, John | Monash University | AUSTRALIA |
| MCCLURE-GRIFFITHS, Naomi | ATNF/CSIRO | AUSTRALIA |
| MCCONNELL, David | ATNI/CSIRO | AUSTRALIA |
| MCCUTCHEON, William | University of British Columbia | CANADA |
| MCDONALD, Art | Queen's University | CANADA |
| MCGRATH, Andrew | Anglo-Australian Observatory | AUSTRALIA |
| MCGRATH, Allulew MCGRATH, Melissa | Space Telescope Science Institute | USA |
| MCGREGOR, Peter | Australian National University | AUSTRALIA |
| | ATNF/CSIRO | AUSTRALIA |
| MCKEE Christopher | | USA |
| MCKINION David | UC Berkeley Charles Sturt University | AUSTRALIA |
| MCKINNON, David | Charles Sturt University | USA |
| MCLAUGHLIN, Dean | Space Telescope Science Institute | UK |
| MCLAUGHLIN, Maura | Jodrell Bank Observatory | USA |
| MCLEAN, Brian | STScI | AUSTRALIA |
| MCLEAN, Donald | ATNF/CSIRO | AUSTRALIA |
| MCLEAN, Peter | Lighting, Art & Science | AUSTRALIA |
| MCMILLAN, Brett | Sydney Observatory/Powerhouse Museum | |
| MCMILLAN, Steve | Drexel University | USA |

| Name | Organisation | Country |
|---------------------------------------|---|-----------------|
| MCNALLY, Derek | University of Hertfordshire | UK |
| MCNAMARA, Delbert Harold | Brigham Young University | USA |
| MCVICAR, Fiona | Vision Design Studio | AUSTRALIA |
| MEADOWS, Victoria | SIRTF Science Centre | USA |
| MEBOLD, Ulrich | University Bonn | GERMANY |
| MEECH, Karen | University of Hawaii | USA |
| MEGEATH, S. Thomas | Harvard Smithsonian Center For Astrophysics | USA |
| MELATOS, Andrew | The University of Melbourne | AUSTRALIA |
| MELEK, Maher | Cairo University | EGYPT |
| MELIKIDZE, George | University Of Zielona Go | POLAND |
| MELNICK, Jorge | La Silla Observatory | CHILE |
| MELROSE, Don | The University of Sydney | AUSTRALIA |
| MENON, Thuppalay K | University of British Columbia | CANADA |
| MENZIES, John Williams | South African Astronomical Observatory | SOUTH AFRICA |
| MERRIFIELD, Michael | University of Nottingham | UK |
| METCALFE, Travis | Harvard-Smithsonian Center For Astrophysics | USA |
| MEURER, Gerhardt R. | The Johns Hopkins University | USA |
| MEYER, Martin | The University of Melbourne | AUSTRALIA |
| MEYLAN, Georges | Space Telescope Science Institute | USA |
| MICHALOWSKI, Stefan | OECD | FRANCE |
| MICHAUD, Georges | Universite De Montreal | CANADA |
| MICKAELIAN, Areg | Byurakan Astrophysical Observatory | ARMENIA |
| MIGNANI, Roberto | European Southern Observatory | GERMANY |
| MIGNARD, Francois | OCA/CERGA | FRANCE |
| MIHOS, Chris | Case Western Reserve University | USA |
| MILANI, Andrea | University Of Pisa | ITALY UK |
| MILLAR, Tom | UMIST | USA |
| MILLER, James | University Of Alabama In Huntsville | USA |
| MILLER, Richard H | University of Chicago ATNF/CSIRO | AUSTRALIA |
| MILNE, Douglas K MILONE, Eugene F. | University Of Calgary | CANADA |
| MINEZAKI, Takeo | University Of Calgary University Of Tokyo | JAPAN |
| MINIER, Vincent | The University of NSW | AUSTRALIA |
| MINNETT, Harry | CSIRO | AUSTRALIA |
| MIODUSZEWSKI, Amy | National Radio Astronomy Observatory | USA |
| MITCHELL, Daniel | The University of Sydney | AUSTRALIA |
| MITCHELL, George | Saint Mary's University | CANADA |
| MITCHELL, Jeremy | The University of Sydney | AUSTRALIA |
| MITTAZ, Jonathan | University of Alabama In Huntsville | USA |
| MIYAJI, Takeshi | National Astronomical Observatory | JAPAN |
| MIYAWAKI, Ryosuke | Fukuoka University Of Education | JAPAN |
| MIYAZAKI, Atsushi | Nobeyama Radio Observatory | JAPAN |
| MIYAZAKI, Satoshi | Subaru Telescope, NAOJ | USA |
| MIYOSHI, Makoto | National Astronomical Observatory | JAPAN |
| MIZUMOTO, Yoshihiko | National Astronomical Observatory | JAPAN |
| MODERSKI, Rafal | Copernicus Astronomical Center | POLAND |
| MOFFETT, David | Furman University | USA |
| MOHANTY, Subhanjoy | Harvard-Smithsonian Center For Astrophysics | USA |
| MOKHELE, Khotso | National Research Foundation | SOUTH AFRICA |
| MOMOSE, Munetake | Ibaraki University | JAPAN |
| MONNET, Guy J | European Southern Observatory | GERMANY |
| MONTES, David | Universidad Complutense De Madrid | SPAIN |
| MONTIER, Ludovic | CESR | FRANCE |
| MONTMERLE, Thierry | Laboratoire D'Astrophysique - UJF | FRANCE |
| MOON, Hong-Kyu | Korea Astronomy Observatory | KOREA |
| MOORE, Anna | Anglo-Australian Observatory | AUSTRALIA |
| MOORE, David | Integral Energy | AUSTRALIA |
| MOORTGAT, Joachim | Nijmegen University | THE NETHERLANDS |
| MOORWOOD, Alan | European Southern Observatory | GERMANY |
| MOOS, Henry | Johns Hopkins University | USA |
| MORALES-RUEDA, Luisa | University of Southampton | UK |

| Name | Organisation | Country |
|-----------------------|---|-----------------|
| MORAN, James | Harvard Smithsonian Center For Astrophysics | USA |
| MOREL, Thierry | Osservatorio Astronomico Di Palermo | ITALY |
| MORGAN, Charles | Monash University | AUSTRALIA |
| MORGAN, Larry | University Of Kent | UK |
| MORGANTI, Raffaella | Netherlands Foundation For Research In Astronomy | THE NETHERLANDS |
| MORI, Koji | The Pennsylvania State Universtiy | USA |
| MORIMOTO, Masaki | Minamitajima Nature Education Center | JAPAN |
| MORRIS, David | IRAM | FRANCE |
| MORRISON, David | NASA Astrobiology Institute | USA |
| MORRISON, Heather | Case Western Reserve University | USA |
| MORTON, Donald | National Research Council | CANADA |
| MOSS, Chris | Telescope Technologies Limited (TTL) | UK |
| MOULD, Jeremy | NOAO Gemini Science Cente | USA |
| MUELLER, Daniel | Kiepenheuer Institute | GERMANY |
| MUELLER, Thomas | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| MULLER, Erik | University of Wollongong | AUSTRALIA |
| MURAOKA, Masae | Chiba University | JAPAN |
| MURDIN, Paul | University Of Cambridge | UK |
| MURDOCH, Hugh | The University of Sydney | AUSTRALIA |
| MURPHY, Michael | University Of Cambridge | UK |
| MURRAY, James | Swinburne University of Technology | AUSTRALIA |
| MURRAY, John | CSIRO | AUSTRALIA |
| MURRAY, Norman | University Of Toronto | CANADA |
| MUSHOTZKY, Richard | NASA/GSFC | USA |
| MUSIELAK, Zdzislaw | University of Texas | USA |
| MUXLOW, Tom | Jodrell Bank Observatory | UK |
| MYNOTT, Andrew | The University of New South Wales | AUSTRALIA |
| NAGAMINE, Kentaro | Harvard-Smithsonian Center For Astrophysics | USA |
| NAGY, Andrew | Pierlite Pty Ltd | AUSTRALIA |
| NAHAR, Sultana | The Ohio State University | USA |
| NAKAI, Naomasa | Nobeyama Radio Observatory | JAPAN |
| NAKAMOTO, Taishi | University of Tsukuba | JAPAN |
| NAKAMURA, Tsuko | National Astronomical Observatory | JAPAN |
| NAKANO, Syuichi | Computing Section Of The OAA | JAPAN |
| NAKASATO, Naohito | University Of Tokyo | JAPAN |
| NAPIWOTZKI, Ralf | Dr. Remeis-Sternwarte | GERMANY |
| NAPOLITANO, Nicola R. | Kapteyn Astronomical Institute | THE NETHERLANDS |
| NARLIKAR, Jayant | Inner-University Centre For Astronomy & Astrophysics | INDIA |
| NARUKAGE, Noriyuki | Kyoto University | JAPAN |
| NAVARRO, Julio | University of Victoria | CANADA |
| NEFF, James | College Of Charleston | USA |
| NELSON, Alistair H. | Cardiff University | UK |
| NELSON, Robert A. | Satellite Engineering Research Corporation | USA |
| NELSON, Robert M. | Jet Propulsion Laboratory | USA |
| NETTERFIELD, Roger | CSIRO | AUSTRALIA |
| NETZER, Hagai | Tel Aviv University | ISRAEL |
| NEW, Roger | Sheffield Hallam University | UK |
| NEWSOM, Gerald | The Ohio State University | UK |
| NG, Debbie | The office date offiversity | |
| NGUYEN, Thi Vuong | Institute Of Physics | VIETNAM |
| NHA, II-Seong | NHA Museum | KOREA |
| NICASTRO, Fabrizio | Harvard Smithsonian Center For Astrophysics | USA |
| NICE, David | Princeton University | USA |
| NIEMELA, Virpi | La Plata Observatory | ARGENTINA |
| NIEZURAWSKA, Anna | Torun Centre For Astronomy | POLAND |
| NISHIKORI, Hiromitsu | Chiba University | JAPAN |
| NISSEN, Poul Erik | University Of Aarhus | DENMARK |
| NITYANANDA, Rajaram | National Centre For Radio Astrophysics, TIFR | INDIA |
| NODA, Hirotomo | National Centre For Radio Astrophysics, TFR National Astronomical Observatory Of Japan | JAPAN |
| NOLAN, Michael | Arecibo Observatory | USA |
| NOLL, Keith | Space Telescope Science Institute | USA |
| NOLL, NGILLI | Space Telescope Science matitute | 33,1 |

| Name | Organisation | Country |
|-----------------------------------|--|---------------------|
| NOMOTO, Ken'ichi | University of Tokyo | JAPAN |
| NOORDAM, Jan E. | ASTRON | THE NETHERLANDS |
| NOORDERMEER, Edo | Kapteyn Astronomical Institute | THE NETHERLANDS |
| NORDLUND, Åke | Copenhagen University | DENMARK |
| NORDSTRÖM, Birgitta | Copenhagen University | DENMARK |
| NORO, Ayato | Chiba University | JAPAN |
| NORRIS, John | Australian National University | AUSTRALIA |
| NORRIS, Ray | ATNF/CSIRO | AUSTRALIA |
| NORTH, Pierre | University Of Lausanne | SWITZERLAND |
| NOVILLY, | Offiversity of Lausanne | 01111 <u>2</u> 1112 |
| NULSEN, Paul | University of Wollongong | AUSTRALIA |
| NURITDINOV, Salakhutdin | National University Of Uzbekistan | UZBEKISTAN |
| O'BRIEN, Jessica Clare | Australian National University | AUSTRALIA |
| O'BRIEN, Paul | University of Leicester | UK |
| O'BYRNE, John | University of Sydney | AUSTRALIA |
| O'DONOGHUE, Darragh | South African Astronomical Observatory | SOUTH AFRICA |
| O'NEAL, Douglas | Allegheny College | USA |
| OCHSENBEIN, Francois | CDS Observatoire De Strasbaurg | FRANCE |
| OGURI, Masamune | University Of Tokyo | JAPAN |
| OHASHI, Nagayoshi | ASIAA | USA |
| OHISHI, Masatoshi | National Astronomical Observatory | JAPAN |
| OHNISHI, Kouji | Nagano National College Of Technology | JAPAN |
| OHTANI, Hiroshi | Department Of Astronomy | JAPAN |
| OHYAMA, Yoichi | Subaru Telescope, NAOJ | USA |
| OJHA, Roopesh | ATNF/CSIRO | AUSTRALIA |
| OKAMOTO, Yoshiko | Kitasato University | JAPAN |
| OKAMURA, Sadanori | University Of Tokyo | JAPAN |
| OKUDA, Haruyuki | Gunma Astronomical Observatory | JAPAN |
| OLIVER, Carol | Guillia Astronomical Observatory | |
| OLSEN, Lisbeth Fogh | Copenhagen University Observatory | DENMARK |
| OMIZZOLO, Alessandro | Vatican Observatory | ITALY |
| OMONT, Alain | IAP | FRANCE |
| OOSTERHOFF, Henk-Sjoerd | NCRV Radio | THE NETHERLANDS |
| OOSTERLOO, Thomas | Netherlands Foundation For Research In Astronomy | THE NETHERLANDS |
| ORCHISTON, Wayne | ATNF/CSIRO | AUSTRALIA |
| ORD, Stephen | Swinburne University of Technology | AUSTRALIA |
| ORINE, Monique | IAU | FRANCE |
| OSORIO, Jose | University Of Porto | PORTUGAL |
| OSTEN, Rachel | National Radio Astronomy Observatory | USA |
| OSWALT, Terry D | Florida Institute Of Technology | USA |
| OTT, Juergen | ATNF/CSIRO | AUSTRALIA |
| OUDMAIJER, Rene | University Of Leeds | UK |
| OWEN, Tobias | University of Hawaii | USA |
| OZAWA, Hideki | De L'Observatoire De Grenoble | FRANCE |
| OZEL, Feryal | Institute For Advanced Study | USA |
| PACE, Russell | The University of Adelaide | AUSTRALIA |
| PACINI, Franco | Arcetri Astrophysical Observatory | ITALY |
| PADGETT, Deborah | California Institute Of Technology | USA |
| PADRIELLI, Lucia | Istituto Di Radioastronomia | ITALY |
| PAGE, Lyman | Princeton University | USA |
| PALMERI, Patrick | NASA/GSFC | USA |
| PALOUS, Jan | The Academy of Science of the Czech Republic | CZECH REPUBLIC |
| PAPITASHVILI, Vladimir | National Science Foundation | USA |
| PAPOVICH, Casey | Steward Observatory | USA |
| PARK, Sangwook | Pennsylvania State University | USA |
| PARKER, Quentin | Macquarie University | AUSTRALIA |
| PARKINSON, William | Harvard Smithsonian Center For Astrophysics | USA |
| PARMA, Paola | Istituto Di Radioastronomia | ITALY |
| PARRY, David | ICSU | NEW ZEALAND |
| PARTRIDGE, Bruce | Haverford College | USA |
| PASACHOFF, Jay M | Williams College | USA |
| · · · · · · · · · · · · · · · · · | | |

| Name | Organisation | Country |
|-----------------------------|--|-----------------|
| PASCUCCI, Ilaria | Max-Planck-Institute For Astronomy | GERMANY |
| PATIENCE, Jenny | California Institute Of Technology | USA |
| PATTERSON, Richard | University of Virginia | USA |
| PAULS, Thomas | Naval Research Laboratory | USA |
| PAVLOV, George | Pennsylvania State University | USA |
| PAYNE, Donald James Barclay | The University of Melbourne | AUSTRALIA |
| PEACOCK, John | University of Edinburgh | UK |
| PEARSON, Chris | The Institute of Space and Astronautical Science | JAPAN |
| · | · | USA |
| PECK, Alison | Harvard Smithsonian Center For Astrophysics | FRANCE |
| PECKER, Jean-Claude | College De France | CZECH REPUBLIC |
| PECKOVA, Zina | Congress Business Travel Ltd. | MEXICO |
| PEIMBERT, Manuel | Universidad Nacional A. De Mexico | GERMANY |
| PELTZER, Martine | European Southern Observatory | USA |
| PENCE, William | NASA/GSFC | USA |
| PENDLETON, Yvonne | NASA Ames Research Center | USA |
| PENG, Eric | Rutgers University | CHINA |
| PENG, Qiu-He | Nanjing University | |
| PERCY, John | University of Toronto | CANADA |
| PERDRIX, John | Astral Press | AUSTRALIA |
| PEREZ MARTIN, Isabel | Australian National University | AUSTRALIA |
| PERKINS, Kala | Australian National University | AUSTRALIA |
| PEROUX, Celine | Astronomical Observatory | ITALY |
| PETER, Hardi | Kiepenheuer Institute | GERMANY |
| PETERS, Geraldine J. | University of Southern California | USA |
| PETERSON, Bradley | The Ohio State University | USA |
| PETERSON, Bruce A. | Australian National University | AUSTRALIA |
| PETERSON, Dawn | University of Rochester | USA |
| PETERSON, Jeffrey | Carnegie Mellon University | USA |
| PETERSON, Ruth | Astrophysical Advances | USA |
| PETIT, Gerard | BIPM | FRANCE |
| PETIT, Pascal | CAUP | PORTUGAL |
| PETITPAS, Glen | University of Maryland | USA |
| PETRE, Robert | NASA/GSFC | USA |
| PETROSIAN, Vahe | Stanford University | USA |
| PETROVA, Svetlana | Institute Of Radio Astronomy, Ukraine | UKRAINE |
| PEVTSOV, Alexei | National Solar Observatory | USA |
| PEYAUD, Alan Edouard Julien | Macquarie University | AUSTRALIA |
| PFENNIGER, Daniel | University of Geneva | SWITZERLAND |
| PFLEIDERER, Joerg | Austrian Academy Of Sciences | AUSTRIA |
| PHELPS, Randy | California State University | USA |
| PHILIP, A G Davis | ISO And Union College | USA |
| PHILLIPS, Andre | The University of New South Wales | AUSTRALIA |
| PHILLIPS, Chris | ATNF/CSIRO | AUSTRALIA |
| PHILLIPS, Robert B. | MIT Haystck Observatory | USA |
| PICKWICK, Alan | RAS Education Committee | UK |
| PIERCE, Mark | University of Bristol | UK |
| PIERCE, Michael John | Swinburne University of Technology | AUSTRALIA |
| PIERRE, Marguerite | SAP CEA Saclay | FRANCE |
| PIETU, Vincent | LAOG | FRANCE |
| PIGATTO, Luisa | Astronomical Observatory Of Padova | ITALY |
| PIGULSKI, Andrzej | Wroclaw University Observatory | POLAND |
| PILACHOWSKI, Catherine A | Indiana University | USA |
| PIMBBLET, Kevin | University of Queensland | AUSTRALIA |
| PINIGIN, Gennady Ivanovich | Nilolaev Astronomical Observatory | UKRAINE |
| PINTER, Balazs | Sheffield Hallam University | UK |
| PINTÉR, Teodor | Slovak Central Observatory | SLOVAK REPUBLIC |
| PISANO, Daniel | ATNF/CSIRO | AUSTRALIA |
| PIVOVAROFF, Michael | University Of California | USA |
| PIZZELLA, Alessandro | Padua University | ITALY |
| PLATAIS, Imants | The Johns Hopkins University | USA |
| POCKLEY, Peter | Australasian Science | AUSTRALIA |
| , | | |

| POCIDETTO, Giammian | Name | Organisation | Country |
|--|---------------------------|--|-----------------|
| POLISTO, Glammia | POGGIANTI, Bianca Maria | Astronomical Observatory Of Padova | ITALY |
| PONDIPPIDAN, Kissus Marrin POOLEY, David MIT POOLEY, David Pooley, D | | • | ITALY |
| POOLEY, David MIT | POLS, Onno | Astronomical Institute Utrecht | THE NETHERLANDS |
| PORTEILL Febrar | PONTOPPIDAN, Klaus Martin | Leiden Observatory | THE NETHERLANDS |
| PORTINARI, Loura | POOLEY, David | MIT | USA |
| PORUBECAN, Vladimir Slovak Academy of Sciences SLOVAK REPUBLIC POTTER, Andrew National Solar Observatory USA POTTER, Daniel University of Arizona USA POTTER, Stephen South African Astronomical Observatory SOUTH AFRICA POUREAR, Dintini Institut Or Astronomical Observatory SOUTH AFRICA POWER, Robert CSIRO AUSTRALIA PRACY, Michael The University of New South Wales AUSTRALIA PRADADANI, Sabella The University of New South Wales AUSTRALIA PRANDONI, Isabella IRA - CNR ITALY PREIDISCH, Thomas Max Planck-Institute For Radioastronomy GERMANY PRESTON, Healther US Ay Force Academy USA PRINCE, Thomas A. Jel Propulsion Laboratory USA PRINCE, Thomas A. Jel Propulsion Laboratory USA | PORTELLI, Peter | Pierlite Pty Ltd | AUSTRALIA |
| POTTER, Andrew National Solar Observatory USA POTTER, Daniel University of Arizona USA POTTER, Stephen South Artican Astronomical Observatory COURBAIX, Dimitri Institut Of Astronomic Et D'Astrophysique BELGIUM PRACY, Michael The University of New South Wales AUSTRALIA PRANDONI, Isabella PRANDAN, Anil The Chio State University USA PRANDONI, Isabella PRAN | PORTINARI, Laura | Theoretical Astrophysics Center | DENMARK |
| POTTER_Daniel | PORUBCAN, Vladimir | Slovak Academy of Sciences | SLOVAK REPUBLIC |
| POTTER, Stephen South African Astronomical Observatory SOUTH AFRICA POURBAX, Dmitri Institut D'Astronomie Et D'Astrophysique BELGIUM POWER, Robert CSIRO AUSTRALIA PRACY, Michael The University of New South Wales AUSTRALIA PRADHAN, Amil The Ohio State University USA AUSTRALIA PRADHAN, Amil The Ohio State University USA INTALIA PRADHONI, Isabella IRA - CNR ITALY PREIBISCH, Thomas Max-Planck-Institute For Radioastronomy GERMANY AUSTRALIA PREIBISCH, Thomas Australia PRADHAN, Amil University Australia PREIBISCH, Heather USA at Force Academy AUSTRALIA PRESTON, Heather USA at Force Academy USA AUSTRALIA PRINACK, Joel University of California USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRINCR, Siyuri Lousia Australian National University AUSTRALIA USA PRINCR, Siyuri Lousia Australian National University USA PROCHASKA, Jason X UCOLILick Observatory; UC Santa Cruz USA PRALTIS, Dimitritios University Of Arizona USA AUSTRALIA PUGA, Island Australian National University Of Australian National University Of Australia Puga Puga Australia Puga Puga Australia Puga Puga Puga Puga Puga Puga Puga Pug | POTTER, Andrew | National Solar Observatory | USA |
| POURBAX, Dimitri Institut D'Astronomie Et D'Astrophysique BELGIUM POWER, Robert CSIRO AUSTRALIA PURACY, Michael The University of New South Wales AUSTRALIA PRACY, Michael The University of New South Wales AUSTRALIA PRACHAN, Anil The Ohio State University Wash State Wash Stat | POTTER, Daniel | University of Arizona | USA |
| POWER, Robert | POTTER, Stephen | South African Astronomical Observatory | SOUTH AFRICA |
| PRACY, Michael The University of New South Wales AUSTRALIA PRADANA, Anii The Onio State University USA PRADANA, Anii The Onio State University USA PRADANA, Isabella IRA - ONR TALLY PRESISCH, Thomas Max-Planck-Institute For Radioastronomy GERMANY PRESTON, Heather US Air Force Academy USA PRESTON, Heather USA Ir Force Academy USA PRESTON, Heather USA Ir Force Academy USA PRESTON, Heather USA Ir Force Academy USA PRESTON, Heather USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRINCE, Sayuri Louise Australian National University Carlot Cuz USA PRINCE, Sayuri Louise University Of Airzona USA PRINCE, Sayuri Louise University Of Airzona PUERARI, Ixanio University Of Airzona USA PELERARI, Ixanio University Of Airzona USA PUERARI, Ixanio Max-Planck-Institute For Astronomy GERMANY PURCELL, Cormac Ronan The University of Very South Wales PURGA, Senghang Viruman Observatory USA UNIVERSITY OF Colorado UNIA, Mary University Of Colorado UNIA, Mary University Of Colorado UNINA, Peter UNIVERSITY OF UN | POURBAIX, Dimitri | Institut D'Astronomie Et D'Astrophysique | BELGIUM |
| PRADHAN, Anil PRANDONI, Isabella PRANDONI, Isabella PRANDONI, Isabella PRANDONI, Isabella PRANDONI, Isabella PRANDONI, Isabella PRESTON, Heather PRESTON, Heath | POWER, Robert | CSIRO | AUSTRALIA |
| PRANDONI, isabella IRA - CNR ITALY PREIBISCH, Thomas Max-Planck-Institute For Radioastronomy GERMANY PREISTOR, Andrew Monash University AUSTRALIA PRESTON, Heather US Air Force Academy USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRINCE, Sayuri Louise Australian National University AUSTRALIA PRINCE, Sayuri Louise University Of California Ush AUSTRALIA PRINCE, Sayuri Louise University Of Australian National University AUSTRALIA PRINCE, Sayuri Louise University Of Australian National University Of Santa Cruz USA PRINCE, Sayuri Louise University Of Australian National University Of Santa Cruz USA PERCHARKA, Jason X UCOLick Observatory UC Santa Cruz USA PUERARI, Ivanic University Of Australian University Of Santa Cruz USA PUERARI, Ivanic Mount Stromio Observatory AUSTRALIA PUGA, Elena Max-Planck-Institute For Astronomy GERMANY PURCELL, Cormac Ronan The University of New South Wales AUSTRALIA PUTMAN, Mary University Of Colorado USA QUA, Dang Quan Yuman Observatory CHINA QUINN, Peter European Southern Observatory CHINA QUINN, Peter European Southern Observatory CHINA QUINN, Peter European Southern Observatory GERMANY QUINRENBACH, Andreas Sterrewacht Leiden THE NETTHERLANDS RADHARRISHNAN, Venkataraman Raman Research Institute INDIA RADHARRISHNAN, Venkataraman Raman Research Institute RADICK, Richard Air Force Research Institute RADICK, Richard Air Force Research Laboratory INDIA RAHARTO, Moedji Beascha Observatory INDIA RAHARTO, Moedji Beascha Observatory INDIA RAMM, David University of Canterbury NEW ZEALAND RACAZZONI, Roberto INAF - Astrophysical Observatory OI Arcetri RATHBORNE, Jill Boston University of Canterbury NEW ZEALAND RAY, Tom Dublin Institute For Advanced Studies IRELAND RAY, Tom Dublin Institute For Advanced Studies IRELAND REPERN, Michael Robert Leonard University of Oxford RECCHI, Simone Germand University of Virginia USA REFEREN, Michael Republican Institute OI Technology REFEREN, Michael Republican A | PRACY, Michael | The University of New South Wales | |
| REIBISCH, Thomas Max-Planck-Institute For Radioastronomy GERMANY PRENTICE, Andrew Monash University AUSTRALIA PRESTON, Heather US Air Force Academy USA JETERALIA PRESTON, Heather USA Force Academy USA PRIMACK, Joel University of California USA PRIMACK, Jason X UCO/Lick Observatory, UC Santa Cruz USA AUSTRALIA PROCHASKA, Jason X UCO/Lick Observatory USA AUSTRALIA USA PRIMACK, Jomitico University of Natrona USA JUSA PUERARI, Ivanio USA Planck Institute For Astronomy GERMANY USA PUERARI, Ivanio Mount Stromio Observatory GERMANY PUGA, Elena Max-Planck Institute For Astronomy GERMANY PUTAMAN, Mary University of New South Wales AUSTRALIA PUTAMAN, Mary University of New South Wales AUSTRALIA UNIVERSITY OF Colorado USA OLINA, Shenghang Yunnan Observatory China Olivary University of Colorado USA OLINA, Shenghang Yunnan Astronomical Observatory China Olivary University of Colorado USA OLINA, Shenghang Yunnan Astronomical Observatory GERMANY OLINA, Peter European Southern Observatory GERMANY OLINA, Peter European Southern Observatory GERMANY OLINA, Peter European Southern Observatory USA RADHAKRISHNAN, Yonkataraman Raman Research Institute INDIA RADICK, Richard Alf-Force Research Leiden Thie Market University USA AGAZZONI, Roberto INAF - Astrophysical Observatory USA RAHARTO, Moedij Boscha Observatory INDONESIA RAMA, David University of Canterbury NEW ZEALAND INDONESIA RATHEDRINE, Jill Boston University Of Carle Peter Strophysical Observatory USA AUSTRALIA RAY, Subrahmanyan ATNF/CSIRO USA AUTRALIA INDIA RELAND RECOH, Simone University of Carle For Astrophysics USA REPRIMANY ELEAND LINA RECON, Peter Leonard University of Carle For Astrophysics USA REPRIMANY ELEAND RECOH, Simone University of Oxford UK REPRIMANY ELEAND LINA RELAND REPRIMANY ELEAND HIGHER ALLIA UNIVERSITY Of Virginia USA REIPURTH, Bo University of Virginia USA REIPURTH, Bo University of Sy | PRADHAN, Anil | The Ohio State University | |
| REENTICE, Andrew Monash University USA A PERESTON, Heather USA A Force Academy USA A PRESTON, Heather USA A Force Academy USA DEPRINACK, Joel University of California USA USA PRINCE, Thomas A. Jef Propulsion Laboratory USA A PRINCE, Thomas A. Jef Propulsion Laboratory USA AUSTRALIA PROCHASKA, Jason X UCO/Lick Observatory; UC Santa Cruz USA USA PSALTIS, Dimitrios University Of Arizona USA USA PSALTIS, Dimitrios University Of Arizona USA USTRALIA MOUNT Strombo Observatory USA AUSTRALIA PUERARI, Ivanio Mount Strombo Observatory AUSTRALIA USA ELEMANY PUERCEL Cormac Ronan The University Of New South Wales USA AUSTRALIA UNIVERSITY OF ASTONOMY CHINA OLD AUSTRALIA UNIVERSITY OLD AUSTRALIA UNIVERSITY OLD AUSTRALIA UNIVERSITY OLD AUSTRALIA UNIVERSITY OLD AUSTRALIA OLD AUSTRALIA UNIVERSITY OLD AUSTRALIA OL | PRANDONI, Isabella | IRA - CNR | |
| RRESTON, Heather US Air Force Academy USA PRIMACK, Joel University of California USA PRIMACK, Joel University of California USA PRINCE, Thomas A. Jet Propulsion Laboratory USA PRIOR, Sayuri Louise Australian National University AUSTRALIA PRIOR, Sayuri Louise Australian National University USA PRIOR, Sayuri Louise University Of Arizona USA PRIOR, Sayuri Louise University Of Arizona USA PSALTIS, Dimitrios University Of Arizona USA PSALTIS, Dimitrios University Of Arizona USA PURARI, Ivanio Mount Sitromio Observatory AUSTRALIA PUFARI, Ivanio Mount Sitromio Observatory GERMANY PURGELL, Cormac Ronan The University Of New South Wales AUSTRALIA PUTMAN, Mary University Of Colorado USA QUAN, Shengbang Yunnan Astronomical Observatory CHINA QUI, Zhong Quan Yunnan Astronomical Observatory CHINA QUI, Zhong Quan Yunnan Astronomical Observatory CHINA QUI, Phore European Southern Observatory GERMANY QUIRRENBACH, Andreas Sterrewacht Leiden THE NETHERLANDS RADI-AKRISHNAN, Venkataraman Raman Research Institute NIDIA RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory INDONESIA RAMM, David University Should University NEW ZEALAND INDONESIA RATULIFF, Stephen Middlebury College USA RATULIFF, Stephen University USA RAVI, Subrahmanyan ATNF/CSIRO UNIversity USA RAVI, Tom Dublin Institute For Advanced Studies RELAND REDPERN, Michael Boston University INDIA RECH, Henry Middlebury College AUSTRALIA RECH, Stephen University Of Virginia USA REDPERN, Michael Boston University Of Virginia USA REDPERN, Michael Boston University Of Virginia USA REDPERN, Michael Boston University Of Virginia USA REITER, Alon Henry Michael Bela Reversion Observatory SWITZERLAND RETTER, Alon The University Of Melbourne AUSTRALIA REYNOCK, Estela M The University Of Webbourne AUSTRALIA RICCE, John Henry Michael Bearcelona RICCE, John Henry M | PREIBISCH, Thomas | Max-Planck-Institute For Radioastronomy | |
| PRIMACK, Joel PRINCE, Thomas A. Jet Propulsion Laboratory PRIOR, Sayuri Louise Australian National University PROCHASKA, Jason X UCOLL& Observatory; UC Santa Cruz USA PSALTIS, Dimitrios University Of Arizona USA PSALTIS, Dimitrios USA PUERARI, Ivanio PUGA, Elena Max-Planck-Institute For Astronomy GERMANY PURCELL, Cormac Ronan The University of New South Wales USA | PRENTICE, Andrew | Monash University | |
| PRINCE, Thomas A. Jet Propulsion Laboratory PRIOR, Sayuri Louise Australian National University PRIOR, Sayuri Louise Australian National University PRIOR, Sayuri Louise USA JUSA PRIOR, Juson X UCO/Lick Observatory; UC Santa Cruz USA PSALTIS, Dimitrios University Of Arizona USA PUERARI, Ivanio PUERARI, Ivanio Mourt Stromlo Observatory UEGA, Liena Max-Planck-Institute For Astronomy GERMANY PUEGELL, Cormac Ronan PUTMAN, Mary University Of Colorado USA QIAN, Shengbang Yunnan Observatory UINA QIU, Abeng Quan Yunnan Astronomical Observatory CHINA QUINN, Peter European Southern Observatory CHINA QUINN, Peter European Southern Observatory CHINA RADHAKRISHNAN, Venkataraman Raman Research Institute RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory INAP - Astrophysical Observatory INAP - Astrophysical Observatory INDIA RAMARIO, Moedij RAMM, David University of Canterbury NEW ZEALAND INDIA RAO, P. Vivekananda University of Canterbury NEW ZEALAND INDIA RAO, P. Vivekananda RATHIGORNE, Jill Boston University RAVI, Subrahamayan ATNIF/CSIRO ATNIF/CSIRO RAY, Tom Dublin Institute For Advanced Studies RELAND RAY, Tom RAYNON, John Harvard-Smithsonian Center For Astrophysics USA REDPY, Naveen California Institute Of Technology RETANLIA REIPERCH, Thomas H University Of Virginia USA REIPERCH, Thomas H University Of Virginia USA REIPERCH, Thomas H University Of Virginia USA REIPERCH, Thomas H University Of Winginia RELAND REVEA, Zedine Resonand University of Sydney AUSTRALIA REIPERCH, Thomas H University Of Melbourne REYHOLDS, John Herbert, Melbourne REYHOLDS, John Herbert, Melbourne RUSA RUSA RUSA RUSA RUSA RUSA RUSA RUSA | PRESTON, Heather | US Air Force Academy | |
| PRIOR, Sayuri Louise Australian National University PROCHASKA, Jason X UCOLLick Observatory; UC Santa Cruz USA USA PROCHASKA, Jason X UCOLLick Observatory; UC Santa Cruz USA USA USA PUERARI, Ivanio Mount Stromio Observatory PUERCELL, Cormac Ronan PURCELL, Cormac Ronan The University of New South Wales AUSTRALIA PUTMAN, Mary University of Colorado USA (AINTALIA) QUIAN, Shengbang Yunnan Observatory QL, Zhong Quan Yunnan Astronomical Observatory QL, Zhong Quan Yunnan Astronomical Observatory QLIRRENBACH, Andreas Sterrewacht Leiden RADHAKRISHNAN, Venkataraman RADHAKRISHNAN, Venkataraman RADHAKRISHNAN, Venkataraman RADHOK, Richard RATHOROM, Juliversity of Canterbury REJALAND RAYMOND, John RATHOK, Richard RAYMOND, John RADHOK, Richard RAYMOND, John RADHAKRISHNAN, Venkataraman RADHOK, Richard REJOY, Naween REDDY, Naween REDDY, Naween REDDY, Naween REDDY, Naween REJOK, Richard REJOK, Richard REJOK, Richard REJOK, Richard REJOK, Richard REJOK, Richard REJALIA REJERICH, Thomas H University of Virginia USA REJERICH, Thomas H University of Virginia USA REJERICH, Thomas H Un | | | |
| PROCHASKA, Jason X JCO/Lick Observatory; US anta Cruz USA PSALTIS, Dimitrios University Of Arizona USA JUSA PUERARI, Ivanio Wount Stromb Observatory AUSTRALIA PUGA, Elena Max-Planck-Institute For Astronomy GERMANY PURCELL, Cormac Ronan The University of New South Wales USA JUSTALIA PUTMAN, Mary University Of Colorado USA JUSTALIA USA JUAN, Shengbang Yunnan Observatory CHINA QUI, Zhong Quan Yunnan Astronomical Observatory CHINA QUI, Zhong Quan Yunnan Astronomical Observatory CHINA QUINN, Peter European Southern Observatory GERMANY QUIRRENBACH, Androas Sterrewacht Leiden RADICK, Richard Air Force Research Laboratory USA RADAKRISHNAN, Verkataraman Raman Research Institute INDIA RAJOKR, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory of Arcetri ITALY RAHARTO, Moedji Bosscha Observatory INDIA RAO, P, Vivekananda Osmania University INDIA RAO, P, Vivekananda Osmania University INDIA RAO, P, Vivekananda Osmania University USA RATHEORNE, Jill Boston University USA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAY, Tom Dublin Institute For Advanced Studies RECCHI, Simone RECCHI, Simone RECCHI, Simone RECCHI, Simone RECCHI, Simone Reland, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University of Kirel REIPRICH, Thomas H University of Virginia REIPRICH, Thomas H University of Virginia REIPRICH, Thomas H University of Sydney SWITZERLAND REYALIA REPONLOR, John AUSTRALIA REPONLOR, John AUSTRALIA REPONLOR, John AUSTRALIA REPONLOR AU | · | | |
| PSALTIS, Dimitrios PUERARI, Ivanio PUERARI, Ivanio Mount Stromio Observatory PUGA, Elena Max-Planck-Institute For Astronomy PURCELL, Cormac Ronan The University of New South Wales AUSTRALIA PUTMAN, Mary University of Colorado USA QIAN, Shenghang Vunnan Observatory QLIAN, Shenghang QUI, Zhong Quan Vunnan Astronomical Observatory CHINA QUINN, Peter European Southern Observatory GERMANY QUINR, Peter European Southern Observatory GERMANY QUIRN, Peter QUIRN, ENBACH, Andreas Sterrewacht Leiden THE NETHERLANDS RADHAKRISHNAN, Venkataraman Raman Research Institute RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri ITALY RAHARTO, Moedji Bosscha Observatory INDONESIA RAMD, David University of Canterbury NEW ZEALAND RAO, P, Vivekananda Osmania University INDIA RATHEORNE, Jill RAY, Subrahmanyan ATNE/CSIRO RAY, Tom Dublin Institute For Advanced Studies RELAND RAY, Tom Dublin Institute For Advanced Studies RELAND RAPO, Poly Naveen California Institute Of Technology USA REDOY, Naveen California Institute Of Technology USA RECCHI, Simone University of Virginia RECON, Naveen California Institute Of Technology USA REIPRICH, Thomas H University of Virginia REIPRICH, Thomas H University of Sydney REITERANO REPURCH, Selena REPURCH, Selena Ball Aerospace & Technologies Corp. USA REITER, Alon The University of Sydney AUSTRALIA REITER, Alon The University of Sydney AUSTRALIA REIPRICH, Thomas H University of Sydney AUSTRALIA REIPRICH, Celine Besançon Observatory FRANCE REYNOLDS, John AUSTRALIA REJORIO, Kristy Joy The University of Sydney AUSTRALIA REJORIO, Kristy Joy The | • • | • | |
| PUERARI, Ivanio Mount Stromio Observatory AUSTRALIA PUGA, Elena Max-Planck-Institute For Astronomy GERMANY PURCELL, Cormac Ronan The University of New South Wales AUSTRALIA PUTMAN, Mary University Of Colorado USA QIAN, Shengbang Yunnan Observatory CHINA QUI, Zhong Quan Yunnan Astronomical Observatory CHINA QUINN, Peter European Southern Observatory GERMANY QUIRRENBACH, Andreas Sterrewacht Leiden THE NETHERLANDS RADHAKRISHNAN, Venkataraman Raman Research Institute INDIA RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory USA RAHARTO, Moedji Bosscha Observatory INDONESIA RAMM, David University of Canterbury INDIA RACILLEF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RATHBORNE, Jill Boston University USA RATHBORNE, Jill Boston University USA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYOND, John Harvard-Smithsonian Center For Astrophysics USA RECOHI, Simone GERMANY RECOHI, Simone GERMANY REDEV, Naveen California Institute Of Technology USA REPORT, Naveen California Institute Of Technology USA REPICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Sydney AUSTRALIA REIPURTH, Bo University of Sydney AUSTRALIA REIPURTH, Bo University of Sydney AUSTRALIA REIPURTH, Bo Huniversity of Sydney AUSTRALIA REIPURTH, Bo Huniversity of Sydney AUSTRALIA REIPURTH, Bo Huniversity of Melbourne AUSTRALIA REVAC, Geline Besançon Observatory FRANCE REYNEC, Geline Besancon Observatory FRANCE REYNEC, Geline Besancon Observatory FRANCE REYNOLDS, John HIPCHORD SISSA/ISAS RICCI, Roberto SISSA/ISAS | · | | |
| PUGA, Elena Max-Planck-Institute For Astronomy GERMANY PURCELL, Cormac Ronan The University of New South Wales AUSTRALIA PURCELL, Cormac Ronan The University of New South Wales QIAN, Shengbang Yunnan Observatory CHINA QUL Zhong Quan Yunnan Astronomical Observatory CHINA QUL Zhong Quan Yunnan Astronomical Observatory CHINA QUINN, Peter European Southern Observatory GERMANY QUIRREMBACH, Andreas Sterrewacht Leiden THE ETHERLANDS RADHAKRISHNAN, Venkataraman Raman Research Institute INDIA RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri ITALY RAHARTO, Moedji Boscha Observatory INDONESIA RAMM, David University of Canterbury INDONESIA RAMM, David University Canterbury INDONESIA RACLIFF, Stephen Middlebury College RATHBORNE, Jill Boston University USA RAYI, Subrahmanyan ATNE/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University Of Xoford UK RECCHI, Simone University of Kiel REDERN, Michael Royal Irish Academy IRELAND REDERN, Michael Royal Irish Academy IRELAND REDERN, Michael Royal Irish Academy IRELAND REPERICH, Thomas H University Of Yirginia USA REIPIERTH, Bo University Of Hawaii USA REIPIERTH, Bo University Of Hawaii USA REIPIERTH, Bo University Of Sydney AUSTRALIA REYYAS Geneva Observatory FRANCE REYYAS Gobservatory FRANCE REYYAS Gobser | · | | |
| PURCELL, Cormac Ronan The University of New South Wales USA USA QUINN, Shengbang Yunnan Observatory CHINA QUINN, Peter European Southern Observatory CHINA RADHAKRISHNAN, Venkataraman Raman Research Institute RADHAKRISHNAN, Venkataraman RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory INDONESIA RAHARTO, Moedji Bosscha Observatory RAMM, David University of Canterbury RATELIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University RAVI, Subrahmanyan ATNF/CSIRO RAYI, Tom Dublin Institute For Advanced Studies RELAND RAYO, Peter Leonard University of Oxford RECCHI, Simone University of Kile RECCHI, Simone University of Kile REPORTN, Michael REIPAND REFIRCH, Thomas H University of Hawaii USA RETIFER, Alon The University of Sydney REVALLA REY, Yos Geneva Observatory REVEX, Yos Geneva Observatory REVALLA REY, Yos Geneva Observatory REVEX, Yos Geneva Observatory REVEX, Yos Geneva Observatory REVEX, Cyber REVEX, Yos Geneva Observatory REVEX, Celine RESPORD, John ATNF/CSIRO REVINCIOS, John AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RHOOK, Kristy Joy RICCI, Roberto RICCI, Roberto REVALDOR REGORD REVINCION REVERSAL ARADA | • | · | |
| PUTMAN, Mary QIAN, Shengbang Yunnan Observatory CHINA QUJ, Shengbang QU, Zhong Quan Yunnan Astronomical Observatory CHINA QUJNN, Peter European Southern Observatory GERMANY QUIRRENBACH, Andreas Sterrewacht Leiden RADICK, Richard RADICK, Richard RADICK, Richard RADICK, Richard RADICK, Richard RAHARTO, Moedji Bosscha Observatory RAMAN, David RAHARTO, Moedji Bosscha Observatory RAMAN, David RAO, P, Vivekananda RATHEORNE, Jill RATCLIFF, Stephen Middlebury College RAYNOND, John RAY, Tom Dublin Institute For Advanced Studies READ, Peter Leonard University of Kile READ, Peter Leonard University of Kile REDDY, Naveen REDDY, Naveen REDDY, Naveen REIPRICH, Thomas H RIPHICH, John RETTER, Alon The University of Virginia REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Selenle REYNOLDS, John REYNES, John REYNOLDS, John REYNOLDS, Estella M REVOLDS, John REYNOLDS, Estella M RIPHICH, H RIPHICH, H RIPHICH, H RIPHICH, H RIPHICH, Shance REYNOLDS, John RIPHICH, H R R R R R R R R R R R R R R R R R R R | • | • | |
| QIAN, Shengbang QU, Zhong Quan Yunnan Observatory QU, Zhong Quan Yunnan Astronomical Observatory QUINN, Peter European Southern Observatory QUINN, Peter QUINRENBACH, Andreas Sterrewacht Leiden RADHAKRISHNAN, Venkataraman Raman Research Institute RIDIA RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory RAMM, David RAMM, David University of Canterbury RAMM, David RAOLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University RAVI, Subrahmanyan ATNF/CSIRO RAY, Tom Dublin Institute For Advanced Studies RELAND RAYOND, John Harvard-Smithsonian Center For Astrophysics USA RECHI, Simone University of Kiel RECHI, Simone California Institute Of Technology REGN, Phila REJN, Naveen California Institute Of Technology REGN, Phila REJN, Harold Ball Aerospace & Technologies Corp. USA REIPURTH, Bo University of Hawaii USA REIPURTH, Bo University of Hawaii REVAR, Verse Geneva Observatory SWITZERLAND REVERALIA REVAZ, Yves Geneva Observatory SWITZERLAND REVAZ, Vves Geneva Observatory SWITZERLAND REVAZ, Vves Geneva Observatory SWITZERLAND REVAZ, Vves Geneva Observatory SWITZERLAND REVNOLD, John ANTRICSIRO REVAZ, Vves Geneva Observatory SWITZERLAND REVAZ, Vves Geneva Observatory SWITZERLAND REVAZ, Vves Geneva Observatory SWITZERLAND REVAZ, Vves Geneva Observatory FRANCE REYNOLDS, John ANTRICSIRO REVAS, Insai University of Melbourne AUSTRALIA RHOOK, Kristy Joy The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RHOOK, Kristy Joy The University of Melbourne SISSA/ISAS ITALY RICE, John | · | • | |
| QUI, Zhong Quan Yunnan Astronomical Observatory GERMANY QUINN, Peter European Southern Observatory GERMANY QUINRENBACH, Andreas Sterrewacht Leiden THE NETHERLANDS RADHAKRISHNAN, Venkataraman Raman Research Institute INDIA RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri ITALY RAHARTO, Moedij Bosscha Observatory INDONESIA RAMM, David University of Canterbury NEW ZEALAND RAO. P. Vivekananda Osmania University INDIA RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RAYI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYOND, John Harvard-Smithsonian Center For Astrophysics USA RED, Peter Leonard University of Kiel GERMANY RECCHI, Simone University of Kiel GERMANY REDDRY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REDREN, Michael Royal Irish Academy IRELAND REIPRICH, Thomas H University Of Hawaii USA REIPURTH, Bo University Of Hawaii USA REIPURTH, Bo University Of Hawaii REIPSEMA, Harold Ball Aerospace & Technologies Corp. USA REITER, Alon The University of Sydney AUSTRALIA REITER, Alon The University of Sydney AUSTRALIA REYNAL AUSTRALIA REYNOLD, John ATNF/CSIRO AUSTRALIA REYNOLD, John AUSTRALIA REYNOLD, John AUSTRALIA REYNOLD, John AUSTRALIA REYNOLD, John AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RHOOK, Kristy Joy The University of Melbourne REYNOLDS, Gene AUSTRALIA RHOOK, Kristy Joy The University of Melbourne RICCI, Roberto SISSA/SAS ITALY RICCI, Roberto RENALDA | • | | |
| QUINN, Peter European Southern Observatory GERMANY QUIRRENBACH, Andreas Sterrewacht Leiden THE NETHERLANDS RADHAKRISHNAN, Venkataraman Raman Research Institute INDIA RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory INDONESIA RAHARTO, Moedji Bosscha Observatory INDONESIA RAMM, David University of Canterbury NEW ZEALAND RAO, P, Vivekananda Osmania University INDIA RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RAYI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Kiel GERMANY RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDDY, Naveen California Institute Of Technology USA REDPERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University of Virginia USA REIPRICH, Alon The University of Sydney AUSTRALIA REYAZ, Yves Geneva Observatory SWITZERLAND REVAZ, Yves Geneva Observatory SWITZERLAND REVAZ, Yves Geneva Observatory SWITZERLAND REVAS, Geline Besançon Observatory AUSTRALIA REVANCSO, Estela M The University of Sydney AUSTRALIA REVNOSO, Estela M The University of Sydney AUSTRALIA REVNOSO, Estela M The University of Belbourne AUSTRALIA RICCI, Roberto SISSA/ISAS ITALY RICCI, John Brandon University CANADA | | • | |
| QUIRRENBACH, Andreas RADHAKRISHNAN, Venkataraman RAman Research Institute RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri RITALY RAHARTO, Moedji Bosscha Observatory INDONESIA RAMM, David University of Canterbury RAO. P, Vivekananda RATCLIFF, Stephen Middlebury College RAYI, Subrahmanyan RAVI, Subrahmanyan ATNF/CSIRO RAYNOND, John Harvard-Smithsonian Center For Astrophysics REDIY, Naveen REDDY, Naveen REDDY, Naveen REDDY, Naveen REDDY, Naveen REDRY, Hillip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University of Virginia REIPRICH, Thomas H University of Institute Or Takademy REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Abon REYNOSO, Estela M The University of Sydney REYNOLD, John ATNF/CSIRO REYNOSO, Estela M The University of Sydney REYNOLD, John REYNOLD, John REYNOLD, John REYNOLD, John REYNOLD, Sydney REIPRICH, Thomas H University of Institute Of Technology REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Sodney REITER, Alon RETTER, Alon RETTER, Alon REYNOLD, John REYNOLD, John REYNOLD, Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RHOOK, Kristy Joy The University of Bearcetona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John | | | |
| RADHAKRISHNAN, Venkataraman RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri ITALY RAHARTO, Meedji Bosscha Observatory INDONESIA RAMM, David University of Canterbury NEW ZEALAND RAO, P, Vivekananda Osmania University INDIA RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RAVI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYMOND, John REDOP, Naveen California Institute Of Technology USA RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDFERN, Michael ROSA, Philip Lighting By Degree AUSTRALIA REJPRICH, Thomas H University of Hawaii Usia REIPBRICH, Thomas H University of Sydney REITER, Alon The University of Sydney REYAZ, Yees Geneva Observatory REYAZ, Yees Geneva Observatory REYAZ, Yees Geneva Observatory REYNOLDS, John AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA REYNOSO, Estela M The University of Melbourne AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA REYNOSO, Estela M The University of Beacciona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University SISSA/ISAS ITALY CANADA | • | | |
| RADICK, Richard Air Force Research Laboratory USA RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri ITALY RAHARTO, Moedji Bosscha Observatory INDONESIA RAMM, David University of Canterbury NEW ZEALAND RAO. P, Vivekananda Osmania University INDIA RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RAVI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPURTH, Bo University of Virginia USA REIPURTH, Bo University of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REYNOLD, Sydne Geneva Observatory FRANCE REYNE, Céline Besançon Observatory FRANCE REYNOLD, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA REYNOSO, Estela M The University of Melbourne AUSTRALIA RIBAS, Ignasi University of Melbourne RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University of Spando University of Spando University of Relourne Spando | * | | |
| RAGAZZONI, Roberto INAF - Astrophysical Observatory Of Arcetri ITALY RAHARTO, Moedji Bosscha Observatory INDONESIA RAMM, David University of Canterbury NEW ZEALAND RAO, P, Vivekananda Osmania University INDIA RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RATHBORNE, Jill Boston University USA RAYI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Kiel GERMANY RECCHI, Simone University of Kiel GERMANY REDDERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPRICH, Thomas H University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REIPRICH, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Melbourne AUSTRALIA RIBAS, Ignasi University of Melbourne RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | • | | |
| RAHARTO, Moedji RAMM, David University of Canterbury NEW ZEALAND RAO. P, Vivekananda RATCLIFF, Stephen Middlebury College RATHBORNE, Jill Boston University USA RATHBORNE, Jill Boston University USA RAYI, Subrahmanyan ATNF/CSIRO RAY, Tom Dublin Institute For Advanced Studies RAYHOND, John READ, Peter Leonard RAYOND, John RECCHI, Simone University of Kiel GERMANY REDDY, Naveen REDDY, Naveen REDDY, Naveen REJDY, Naveen REJDY, Naveen REJDY, Naveen REJRICH, Thomas H RIPRICH, Thomas H University of Virginia Usa REIPRICH, Thomas H University of Virginia USA REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Simon REIPRICH, Simon REIPRICH, Simon REIPRICH, Simon REIPRICH, Thomas H REIPRICH, Simon REIPRICH, Simon REIPRICH, Simon REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Simon REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Thomas H REIPRICH, Simon REIPRICH, Thomas H REIPRICH, Thoma | · | · · · · · · · · · · · · · · · · · · · | |
| RAMM, David University of Canterbury NEW ZEALAND RAO. P, Vivekananda Osmania University INDIA RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RAYI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University of Virginia USA REIPURTH, Bo University Of Hawaii USA REITER, Alon The University of Sydney AUSTRALIA REYAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA RIBAS, Ignasi University of Melbourne RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University Of Melbourne RICCI, ROberto SISSA/ISAS ITALY RICE, John Brandon University Of Sydney RICE, John Brandon University CANADA | • | | |
| RAO. P, Vivekananda RATCLIFF, Stephen RATCLIFF, Stephen RATHBORNE, Jill Boston University USA RATHBORNE, Jill Boston University USA RAVI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies RELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen REDDY, Naveen California Institute Of Technology USA REGAN, Philip Lighting By Degree AUSTRALIA REIPURTH, Bo University of Virginia USA REIPURTH, Bo University of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon RETTER, Alon REVAZ, Yves Geneva Observatory REYLÉ, Céline Besançon Observatory REYNOLDS, John ATNF/CSIRO REYNOLDS, John ATNF/CSIRO RIBAS, Ignasi University of Melbourne RICCI, Roberto SISSA/ISAS ITALIY RICCI, ROberto Brandon University CANADA | | | |
| RATCLIFF, Stephen Middlebury College USA RATHBORNE, Jill Boston University USA RAVI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPRICH, Thomas H University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA RHOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Baraclona SPAIN RICCI, Roberto SISSA/ISAS IITALY RICE, John Brandon University | · | | |
| RATHBORNE, Jill Boston University USA RAVI, Subrahmanyan ATNF/CSIRO AUSTRALIA RAY, Tom Dublin Institiute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA READ, Peter Leonard University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University of Virginia USA REIPURTH, BO University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University | • | · | |
| RAVI, Subrahmanyan ATNF/CSIRO Dublin Institiute For Advanced Studies RAY, Tom Dublin Institiute For Advanced Studies RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory REYNOLDS, John ATNF/CSIRO ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne RIBAS, Ignasi Universita De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | | | |
| RAY, Tom Dublin Institiute For Advanced Studies IRELAND RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYAZ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University | · | · | AUSTRALIA |
| RAYMOND, John Harvard-Smithsonian Center For Astrophysics USA READ, Peter Leonard University of Oxford UK RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, BO University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYAZ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University | • | | IRELAND |
| READ, Peter Leonard RECCHI, Simone University of Kiel RECCHI, Simone University of Kiel REDDY, Naveen California Institute Of Technology REDFERN, Michael Royal Irish Academy REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Hawaii REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory REYLÉ, Céline REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY CANADA | * | | USA |
| RECCHI, Simone University of Kiel GERMANY REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REVNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICCI, John Brandon University CANADA | • | | UK |
| REDDY, Naveen California Institute Of Technology USA REDFERN, Michael Royal Irish Academy IRELAND REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | RECCHI, Simone | | GERMANY |
| REGAN, Philip Lighting By Degree AUSTRALIA REIPRICH, Thomas H University Of Virginia USA REIPURTH, Bo University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REDDY, Naveen | | USA |
| REIPRICH, Thomas H REIPURTH, Bo University Of Virginia USA REITSEMA, Harold Ball Aerospace & Technologies Corp. RETTER, Alon The University of Sydney REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REDFERN, Michael | Royal Irish Academy | IRELAND |
| REIPURTH, Bo University Of Hawaii USA REITSEMA, Harold Ball Aerospace & Technologies Corp. USA RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University | REGAN, Philip | Lighting By Degree | AUSTRALIA |
| REITSEMA, Harold RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REIPRICH, Thomas H | University Of Virginia | USA |
| RETTER, Alon The University of Sydney AUSTRALIA REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REIPURTH, Bo | University Of Hawaii | USA |
| REVAZ, Yves Geneva Observatory SWITZERLAND REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REITSEMA, Harold | Ball Aerospace & Technologies Corp. | |
| REYLÉ, Céline Besançon Observatory FRANCE REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | RETTER, Alon | The University of Sydney | AUSTRALIA |
| REYNOLDS, John ATNF/CSIRO AUSTRALIA REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REVAZ, Yves | Geneva Observatory | SWITZERLAND |
| REYNOSO, Estela M The University of Sydney AUSTRALIA RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REYLÉ, Céline | Besançon Observatory | |
| RHOOK, Kristy Joy The University of Melbourne AUSTRALIA RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REYNOLDS, John | ATNF/CSIRO | |
| RIBAS, Ignasi Universitat De Barcelona SPAIN RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | REYNOSO, Estela M | The University of Sydney | |
| RICCI, Roberto SISSA/ISAS ITALY RICE, John Brandon University CANADA | RHOOK, Kristy Joy | The University of Melbourne | |
| RICE, John Brandon University CANADA | | | |
| | · | | |
| RICH, Robert Sylvania Lighting Australasia AUSTRALIA | · | | |
| | RICH, Robert | Sylvania Lighting Australasia | AUSTRALIA |

| Name | Organisation | Country |
|--------------------------------|--|--------------|
| RICHARDS, Mercedes | Pennsylvania State University | USA |
| RICHICHI, Andrea | European Southern Observatory | GERMANY |
| RICHTER, Bernd | Federal Agency For Cartogrphy And Geodesy | GERMANY |
| RICKETT, Barney | University of California | USA |
| RICKMAN, Hans | International Astronomical Union | FRANCE |
| RIFAI-HABBAL, Shadia | University of Wales At Aberyst Wyth | UK |
| RIJSDIJK, Case | SAAOP | SOUTH AFRICA |
| RILEY, Kevin | Wadco Lighting | AUSTRALIA |
| RIXON, Guy | University of Cambridge | UK |
| ROBBERTO, Massimo | ESA - Space Telescope Science Institute | USA |
| ROBERTS, David | Brandeis University | USA |
| ROBERTS, Helen | The Ohio State University | USA |
| ROBERTS, James A | ATNF/CSIRO | AUSTRALIA |
| ROBERTS, Mallory | McGill University | CANADA |
| ROBERTS, Sarah Georgina | Cardiff University | UK |
| ROBERTSON, James Gordon | The University of Sydney | AUSTRALIA |
| ROBINSON, Brian | ATNF/CSIRO | AUSTRALIA |
| ROBINSON, Peter | University of Sydney | AUSTRALIA |
| ROCCA-VOLMERANGE, Brigitte | Institut D'Astrophysique De Paris | FRANCE |
| ROCHE, Patrick | Oxford University | UK |
| RODGERS, Steve | NASA Ames Research Center | USA |
| RODRIGUEZ, Luis | Universidad Nacional Autonoma De Mexico | MEXICO |
| RODRIGUEZ, Monica | INAOE | MEXICO |
| RODRIQUEZ, Jasmine | | |
| ROMANOWSKY, Aaron | University of Nottingham | UK |
| ROMERO, Van | New Mexico Tech | USA |
| ROMERO COLMENERO, Encarnacion | South African Astronomical Observatory | SOUTH AFRICA |
| ROS, Rosa M | Technical University of Catalonia | SPAIN |
| ROSSA, Joern | Space Telescope Science Institute | USA |
| ROST, Michael | Institute For Geophysics & Meteorlogy | GERMANY |
| ROTH, Ilan | University of California | USA |
| ROTS, Arnold | CFA/SAO | USA |
| ROUAN, Daniel | Observatoire De Paris | FRANCE |
| ROUNTREE, Janet | Science Applications International Corporation | USA USA |
| ROUSE, Carl | Rouse Research, Inc. | USA |
| ROWELL Covin | Science | GERMANY |
| ROWELL, Gavin RUBIN, Robert | Max-Planck-Institut Fuer Kernphysik | USA |
| RUCINSKI, Slavek | NASA Ames Research Centre University Of Toronto | CANADA |
| RUDAK, Bronislaw | Nicolaus Copernicus Astronomical Center | POLAND |
| RUGGLES, Clive | University of Leicester | UK |
| RUSSEIL, Delphine | LAM | FRANCE |
| RUSSELL, Christopher | University of California | USA |
| RUST, David | Johns Hopkins Applied Physics Laboratory | USA |
| RUTLEDGE, Blake | Connection in Applica Physica Laboratory | |
| RUTLEDGE, Robert | Caltech | USA |
| RUTLEDGE, Sharon | University of Western Sydney | AUSTRALIA |
| RYAN, Rebecca | Coonabarabran Shire Council | AUSTRALIA |
| RYAN-WEBER, Emma | The University of Melbourne | AUSTRALIA |
| RYDER, Stuart | Anglo-Australian Observatory | AUSTRALIA |
| SAAR, Steven | Smithsonian Astrophysical Observatory | USA |
| SACKETT, Penny D | Australian National University | AUSTRALIA |
| SADLER, Elaine M. | The University of Sydney | AUSTRALIA |
| SAFARI, Hossein | Institute For Advanced Studies In Basic Sciences | IRAN |
| SAFOURIS, Vicky | Australian National University | AUSTRALIA |
| SAITO, Masao | National Astronomical Observatory | JAPAN |
| SAITO, Yoshihiko | National Astronomical Observatory | JAPAN |
| SAKANO, Masaaki | University of Leicester | UK |
| SAKO, Shigeyuki | Subaru Telescope, NAOJ | USA |
| SALINARI, Piero | Osservatorio Di Arcetri | ITALY |
| SALISBURY, Donn | | AUSTRALIA |
| | | |

| Name | Organisation | Country |
|---------------------------|--|-----------------|
| SALMERON, Raquel | The University of Sydney | AUSTRALIA |
| SALVATI, Marco | Osservatorio Astrofisico Di Arcetri | ITALY |
| SALVO, Maria Elena | Australian National University | AUSTRALIA |
| SAMADI, Reza | Observatoire De Paris-Meudon | FRANCE |
| SAMEC, Ronald G | Astronomy Progam | USA |
| SANCISI, Renzo | Bologna Observatory | ITALY |
| SANDERS, David B. | University Of Hawaii | USA |
| SANDERSON, Trevor | European Space Agency | THE NETHERLANDS |
| SANTAMARIA, Caroline | The University of New South Wales | AUSTRALIA |
| SANTOS, Nuno Miguel | Observatorio De Lisboa | PORTUGAL |
| SANZ, Jose Luis | IFCA | SPAIN |
| SANZ FORCADA, Jorge | Osservatorio Astronomico Di Palermo | ITALY |
| SARAZIN, Craig | University of Virginia | USA |
| SARGENT, Anneila | California Institute Of Technology | USA |
| SARGENT, Wallace | California Institute Of Technology | USA |
| SARIPALLI, Lakshmi | ATNF/CSIRO | AUSTRALIA |
| SARKISSIAN, John Mihran | ATNF/CSIRO | AUSTRALIA |
| SASAKI, Toshiyuki | Subaru Telescope, NAOJ | USA |
| SATO, Katsuhiko | The University Of Tokyo | JAPAN |
| SATTERTHWAITE, Gilbert | Imperial College London | UK |
| SAVAGE, Ann | Anglo-Australian Observatory | AUSTRALIA |
| SAVAGE, Blair | University of Wisconsin | USA |
| SAVIANE, Ivo | European Southern Observatory | CHILE |
| SAWADA, Tsuyoshi | Nobeyama Radio Observatory | JAPAN |
| SAWANO, Akihiro | Waseda University | JAPAN |
| SAZONOV, Sergey | Max-Planck-Institute For Astrophysics | GERMANY |
| SCARDINO, Nicole | | |
| SCARFE, Colin | University of Victoria | CANADA |
| SCARPA, Riccardo | European Southern Observatory | CHILE |
| SCHADE, David | Herzberg Institute Of Astrophysics | CANADA |
| SCHAERER, Daniel | Geneva Observatory | SWITZERLAND |
| SCHECHTER, Paul | Massachusetts Institute Of Technology | USA |
| SCHELKE, Mia | Stockholm University | SWEDEN |
| SCHILIZZI, Richard | Square Kilometre Array Project | THE NETHERLANDS |
| SCHINNERER, Eva | NRAO | USA |
| SCHIPPERS, Stefan | Justus Liebig Universitaet Giessen | GERMANY |
| SCHLOERB, F. Peter | University of Massachusetts At Amherst | USA |
| SCHMIDT, Brian | The Australian National University | AUSTRALIA |
| SCHMIEDER, Brigitte | Observatoire De Paris-Meudon | FRANCE |
| SCHMITT, Jürgen | Hamburger Sternwarte | GERMANY |
| SCHMITZ, Marion | Caltech/NED | USA |
| SCHNEIDER, Glenn | The University of Arizona | USA |
| SCHNEIDER, Peter | Bonn University | GERMANY |
| SCHOLLER, Marcus | European Southern Observatory | CHILE |
| SCHOU, Jesper | Stanford University | USA |
| SCHREIER, Ethan J. | AUI | USA |
| SCHRIJVER, Carolus J. | Lockheed Martin, Advanced Technology Center | USA |
| SCHUH, Harald | Institute Of Geodesy & Geophysics | AUSTRIA |
| SCHULLER, Peter Alexander | Harvard Smithsonian Center For Astrophysics | USA |
| SCHULZ, Rita | European Space Agency | THE NETHERLANDS |
| SCHUMACHER, Elke | University Of Kiel | GERMANY |
| SCHUTZ, Bernard | Max-Planck-Institute For Gravitational Physics | GERMANY |
| SCHWARTZ, Daniel | Smithsonian Astrophysical Observatory | USA |
| SCHWOPE, Axel | Astrophysical Institute Potsdam | GERMANY |
| SECKOLD, Jeff | CSIRO | AUSTRALIA |
| SEFAKO, Ramotholo | University of Wisconsin - Madison | USA |
| SEIDELMANN, Kenneth | University of Virginia | USA |
| SEIRADAKIS, John-Hugh | Aristotle University Of Thessaloniki | GREECE |
| SEKIGUCHI, Naosuke | Astronomical Society Of Japan | JAPAN |
| SEKII, Takashi | Japan Science & Technology Corporation | JAPAN |
| SELLWOOD, Jerry | Rutgers University | USA |

| Name | Organisation | Country |
|-------------------------------|--|------------------------|
| SEMBACH, Kenneth | Space Telescope Science Institute | USA |
| SENDEROVA, Monika | Congress Business Travel Ltd. | CZECH REPUBLIC |
| SERLEMITSOS, Peter | NASA/GSFC | USA |
| SERRANO, Alfonso | National Institute Of Astrophysics, Optics & Electronics | MEXICO |
| SHANG, Hsien | ASIAA | TAIWAN |
| SHANG, Rencheng | Tsinghua University | CHINA |
| SHANKS, Tom | University Of Durham | UK |
| SHAO, Zhengyi | Shanghai Astronomical Observatory | CHINA |
| SHAOLAN, Bi | Yunnan Astronomical Observatory | CHINA |
| SHARE, Gerald | Naval Research Laboratory | USA |
| SHARMA, Dharma | National Space Science & Technology Center | USA |
| SHARMA, Sanat Kumar | B.P. Koirala Memorial Planetarium, Observatory & Science | NEPAL |
| SHAVER, Peter | European Southern Observatory | GERMANY |
| SHEN, Zhi-Qiang | ASIAA | TAIWAN |
| SHEPPARD, Scott | University of Hawaii | USA |
| SHETH, Kartik | California Institute Of Technology | USA |
| SHIBAI, Hiroshi | Nagoya University | JAPAN |
| SHIBASAKI, Kiyoto | Nobeyama Radio Observatory | JAPAN |
| SHIBAZAKI, Noriaki | Rikkyo University | JAPAN |
| SHIGEYAMA, Toshikazu | University of Tokyo | JAPAN |
| SHIOYA, Yasuhiro | Tohoku University | JAPAN |
| SHIPMAN, Henry | University of Delaware | USA |
| SHIRASAKI, Yuji | National Astronomical Observatory | JAPAN |
| SHOSTAK, Seth | SETI Institute | USA |
| SHU, Frank | National Tsing Hua University | TAIWAN |
| SHUSTOV, Boris | Russain Academy Of Sciences | RUSSIAN FEDERATION |
| SICARDY, Bruno | Observatoire De Paris-Meudon | FRANCE |
| SIEBERT, Arnaud | Steward Observatory | USA |
| SILVA, Adriana V. R | Mackenzie University | BRAZIL |
| SILVER, Eric | Harvard-Smithsonian Center For Astrophysics | USA |
| SILVERBERG, Robert | NASA/GSFC | USA |
| SIM, Helen | ATNF/CSIRO | AUSTRALIA |
| SIM, Stuart | Imperial College London | UK |
| SIMKIN, Susan | Michigan State University | USA |
| SIMPSON, Andrew | The University of New South Wales | AUSTRALIA AUSTRALIA |
| SINCLAIR, Malcolm William | ATNF/CSIRO | |
| SION, Edward | Villanova University | USA ITALY |
| SIRONI, Giorgio | University of Milano Bicocca | JAPAN |
| SIRONO, Sin-Iti | Nagoya University | POLAND |
| SITARSKI, Grzegorz | University In Bialystok | USA |
| SITKO, Michael SKODA, Petr | University of Cincinnati | CZECH REPUBLIC |
| SKOKOS, Charalampos (Haris) | The Academy of Science of the Czech Republic | GREECE |
| SLADE, Martin | Academy Of Athens JPL/Caltech | USA |
| SLANE, Patrick | Harvard-Smithsonian Center For Astrophysics | USA |
| SLEE, Bruce | ATNF/CSIRO | AUSTRALIA |
| SLOSAR, Anze | University Of Cambridge | UK |
| SMAIL, Ian | University Of Durham | UK |
| SMARTT, Ray | CSIRO | AUSTRALIA |
| SMITH, Craig | Eos & Eost | USA |
| SMITH, David | NASA/GSFC | USA |
| SMITH, Malcolm G. | Cerro Tololo Inter-American Observatory | CHILE |
| SMITH, Nigel | Rutherford Appleton Laboratory | UK |
| SMITH, Peter L. | Harvard-Smithsonian Center For Astrophysics | USA |
| SMITH, Randall | Harvard-Smithsonian Center For Astrophysics | USA |
| SMITH, Robert Connon | University of Sussex | UK |
| SMITH, Verne | University Of Texas El Paso | USA |
| SMITS, Derck | University of South Africa | SOUTH AFRICA |
| SNEDEGAR, Keith | Utah Valley State College | USA |
| SNEDEN, Christopher | University of Texas | USA |
| SNOW, Theodore P | University of Colorado | USA |
| | • | |

| Name | Organisation | Country |
|-----------------------------|---|----------------------|
| SNOWDEN, Michael | | NEW ZEALAND |
| SNYDER, Lewis E. | University of Illinois | USA |
| SOBOUTI, Yousef | Institute For Advanced Studies In Basic Sciences (IASBS) | IRAN |
| SOFIA, Ulysses | Whitman College | USA |
| SOFUE, Yoshiaki | University Of Tokyo | JAPAN |
| SOHN, Jungjoo | Seoul National University | KOREA |
| SOKER, Noam | Oranim | ISRAEL |
| SOLANKI, Sami K. | Max-Planck-Institute For Astronomy | GERMANY |
| SOLHEIM, Jan-Erik | University of Oslo | NORWAY |
| SOMA, Mitsuru | National Astronomical Observatory | JAPAN |
| SONG, Guo-Xuan | Shanghai Astronomical Observatory | CHINA |
| SONNEBORN, George | NASA/GSFC | USA |
| SPARKS, Patricia | The University of New South Wales | AUSTRALIA |
| SPEKKENS, Kristine | Cornell University | USA |
| SPENCER, Ralph | Jodrell Bank Observatory | UK |
| SPERGEL, David | Princeton University | USA |
| SPITE, Francois | Observatoire De Paris-Meudon | FRANCE |
| SPITE, Monique | Observatoire De Paris-Meudon | FRANCE |
| SPITKOVSKY, Anatoly | UC Berkeley | USA |
| SPRAGUE, Ann | University Of Arizona | USA |
| SPRINGEL, Volker | Max-Planck-Institute For Astrophysics | GERMANY |
| SPURNY, Pavel | The Academy of Sciences | CZECH REPUBLIC |
| SPURZEM, Rainer | Astroniches Rechen-Institut | GERMANY |
| SRIANAND, Raghunathan | Inter-University Center For Astronomy & Astrophysics | INDIA |
| SRINIVASAN, Ganesan | Raman Research Institute | INDIA |
| STABELL, Rolf | University Of Oslo | NORWAY |
| STAIRS, Ingrid | University of British Columbia | CANADA |
| STANDISH, E Myles | JPL/Caltech | USA |
| STANFORD, Laura | Australian National University | AUSTRALIA |
| STAPELFELDT, Karl | Jet Propulsion Laboratory | USA |
| STAPPERS, Ben | Stichting ASTRON | THE NETHERLANDS |
| STARK, Antony A. | Smithsonian Astrophysical Observatory | USA |
| STAVELEY-SMITH, Lister | ATNF/CSIRO | AUSTRALIA |
| STAVINSCHI, Magda | The Romanian Academy | ROMANIA |
| STEEGHS, Danny | Harvard-Smithsonian Center For Astrophysics | USA |
| STEIN, Robert | Michigan State University | USA |
| STEINMETZ, Matthias | Astrophysical Institute Potsdam | GERMANY |
| STELLO, Dennis | The University of Sydney | AUSTRALIA |
| STENBORG, Travis | The University of Melbourne | AUSTRALIA |
| STENCEL, Robert | University of Denver | USA |
| STENFLO, Jan | Institute Of Astronomy, ETH Zurich | SWITZERLAND |
| STEPHENSON, Francis Richard | University of Durham | UK |
| STEPIEN, Kazimierz | Warsaw University Observatory | POLAND |
| STEPP, Lawrence | Gemini Observatory | USA |
| STERKEN, Chris | University of Brussels (VUB) | BELGIUM AUSTRALIA |
| STEVENS, Jamie | The University of Melbourne | |
| STICKEL, Manfred | Max-Planck-Institute For Astronomy | GERMANY USA |
| STOFAN, Ellen | Proxemy Research | USA |
| STOLTE Andrea | Stolmar Corporation | GERMANY |
| STOLTE, Andrea | Max-Planck-Institute For Astronomy | AUSTRALIA |
| STOREY, John | The University of New South Wales ATNF/CSIRO | AUSTRALIA |
| STOREY, Michelle | | GERMANY |
| STRASSMEIER, Klaus G. | Astrophysical Institute Potsdam Netherlands Foundation For Research In Astronomy | THE NETHERLANDS |
| STRATEN VAN, Willem | Netherlands Foundation For Research In Astronomy | USA |
| STRINGFELLOW, Guy | University Of Colorado | USA |
| STROBEL, Darrell F. | Johns Hopkins University | THE NETHERLANDS |
| STROM, Richard | ASTRON | USA |
| STRUCK, Curtis | lowa State University | AUSTRALIA |
| STUPAR, Milorad | Macquarie University National Astronomical Observatories, CAS | CHINA |
| SU, Ding-Qiang | · | USA |
| SUESS, Steven | NASA Marchall Space Flight Centre | 33,1 |

| Name | Organisation | Country |
|--------------------------|---|-------------|
| SUGITANI, Koji | Nagoya City University | JAPAN |
| SULLIVAN, Woodruff | University of Washington | USA |
| SUNADA, Kazuyoshi | Nobeyama Radio Observatory | JAPAN |
| SUNG, Eon-Chang | Korea Astronomy Observatory | KOREA |
| SUNYAEV, Rashid | Max-Planck-Institute For Astrophysics | GERMANY |
| SUSUKITA, Ryutaro | The Institute of Physical and Chemical Research (RIKEN) | JAPAN |
| SUTHERLAND, Ralph S. | Australian National University | AUSTRALIA |
| SUTO, Yasushi | University of Tokyo | JAPAN |
| SUZUKI, Takeru | Kyoto University | JAPAN |
| SVENSON, Nic | The Sun Herald | AUSTRALIA |
| SWAIN, Mark | Jet Propulsion Laboratory | USA |
| SWATERS, Rob | Johns Hopkins University | USA |
| SWEATMAN, Winston | Massey University, Albany | NEW ZEALAND |
| SWINGS, Jean Pierre | University of Liege | BELGIUM |
| SZALAY, Alexander | The Johns Hopkins University | USA |
| SZKODY, Paula | University of Washington | USA |
| TACHIHARA, Kengo | University Observatory of Jena | GERMANY |
| TAKADA-HIDAI, Masahide | | JAPAN |
| * | Tokai University | JAPAN |
| TAKAHASHI, Fujinobu | Communications Research Laboratory | JAPAN |
| TAKAHASHI, Rohta | Kyoto University | USA |
| TAKAKUWA, Shigehisa | Harvard Smithsonian Center For Astrophysics | UK |
| TAKANO, Chura | University Of Hertfordshire | JAPAN |
| TAKANO, Shuro | Nobeyama Radio Observatory | JAPAN |
| TAMURA Marahida | National Astronomical Observatory | JAPAN |
| TAMURA, Motohide | National Astronomical Observatory | JAFAN |
| TAN, Alison | N 1 A | JAPAN |
| TANAKA, Masahiro | National Astronomical Observatory | GERMANY |
| TANAKA, Yasuo | Max-Planck-Institut Fuer Extraterrestrische Physik | AUSTRALIA |
| TANGO, William | University of Sydney | JAPAN |
| TANIGUCHI, Yoshiaki | Tohoku University | JAPAN |
| TANIKAWA, Kiyotaka | National Astronomical Observatory | JAPAN |
| TANUMA, Syuniti | Kyoto University | |
| TAPIA, Mauricio | Instituto De Astronomia, UNAM | MEXICO |
| TARENGHI, Massimo | Alma | GERMANY |
| TARTER, C. Bruce | Lawrence Livermore National Laboratory | USA |
| TARTER, Jill | SETI Institute | USA |
| TATEKAWA, Takayuki | Waseda University | JAPAN |
| TATEMATSU, Ken'ichi | National Astronomical Observatory | JAPAN |
| TATULLI, Eric | Observatoire Grenoble (LAOG) | FRANCE |
| TAUTVAISIENE, Grazina | Vilnius University | LITHUANIA |
| TAYLOR, A. Russell | SKA: International SKA Secretariat | CANADA |
| TAYLOR, Edward | The University of Melbourne | AUSTRALIA |
| TAYLOR, James | University of Oxford | UK |
| TAYLOR, Joseph | Princeton University | USA |
| TEDESCO, Edward | TerraSystems, Inc. | USA |
| TEMPORIN, Sonia Giovanna | University Of Innsbruck | AUSTRIA |
| TEN BOOM, Paul Geert | The University of New South Wales | AUSTRALIA |
| TEN BRUMMELAAR, Theo | Georgia State University | USA |
| TERRILE, Richard | Jet Propulsion Lab | USA |
| TESTI, Leonardo | Osservatorio Astrofisico Di Arcetri | ITALY |
| THEIS, Christian | University of Kiel | GERMANY |
| THOLEN, David J. | University of Hawaii | USA |
| THOM, Christopher | Swinburne University of Technology | AUSTRALIA |
| THOMAS, Daniel | Max-Planck-Institut Fuer Extraterrestrische Physik | GERMANY |
| THOMAS, Maik | Technical University Dresden | GERMANY |
| THOMAS, Nicolas | University Of Bern | SWITZERLAND |
| THOMPSON, David | NASA/GSFC | USA |
| THOMPSON, Rodger I. | University of Arizona | USA |
| THUILLOT, William | IMCCE/Paris Observatory | FRANCE |
| THURL, Christine | Mount Stromlo Observatory | AUSTRALIA |
| TIAN, Lanlan | Purple Mountain Observatory | CHINA |
| | | |

| Name | Organisation | Country |
|---|--|--------------------|
| TIAN, Lirong | National Astronomical Observatories, CAS | CHINA |
| TICHA, Jana | Klet Observatory | CZECH REPUBLIC |
| TICHY, Milos | Klet Observatory | CZECH REPUBLIC |
| TINNEY, Chris | Anglo-Australian Observatory | AUSTRALIA |
| TIPLADY, Adrian | Rhodes University | SOUTH AFRICA |
| TISSERA, Patricia | Institute Of Astronomy & Space Science | ARGENTINA |
| TITLE, Alan | LMATC | USA |
| TITOV, Oleg | Geoscience Australia | AUSTRALIA |
| TOKOVININ, Andrei | Cerro Tololo Inter-American Observatory | CHILE |
| TOLBERT, Charles | University of Virginia | USA |
| TOLSTOY, Eline | Kapteyn Astronomical Institute | THE NETHERLANDS |
| TOOMRE, Alar | Massachusetts Institute Of Technology | USA |
| TORRES-PEIMBERT, Silvia | Universidad Nacional A. De Mexico | MEXICO |
| TORTORA, Paolo | University Of Bologna | ITALY |
| TOTANI, Tomonori | Kyoto University | JAPAN |
| TOTHILL, Nicholas | Smithsonian Astrophysical Observatory | USA |
| TOVMASIAN, Gagik | Observatorio Astronomico Nacional | MEXICO |
| TOYOZUMI, Hiroyuki | The University of New South Wales | AUSTRALIA |
| TRAN, Le | | |
| TRAUB, Wesley | Harvard-Smithsonian Center For Astrophysics | USA |
| TRAVOUILLON, Tony | The University of New South Wales | AUSTRALIA |
| TRESCHMAN, Keith | The Glennie School | AUSTRALIA |
| TREU, Tommaso | California Institute Of Technology | USA |
| TRIMBLE, Virginia | University of California | USA |
| TROTT, Cathryn | The University of Melbourne | AUSTRALIA |
| TSUBOI, Yohko | Chuo University | JAPAN |
| TSUBOTA, Yukimasa | Keio Senior High School | JAPAN |
| TSUJIMOTO, Takuji | National Astronomical Observatory | JAPAN |
| TSURUTA, Sachiko | Montana State University | USA |
| TSVETANOV, Zlatan | NASA Headquarters | USA |
| TSVETKOV, Milcho | Bulgarian Academy Of Sciences | BULGARIA |
| TUCCI, Marco Lorenzo | Instituto De Fisica De Cantabria | SPAIN |
| TULLY, R. Brent | University of Hawaii | USA |
| TUNTSOV, Artem | Gazeta.ru | RUSSIAN FEDERATION |
| TUOMINEN, Ilkka | University of Oulu | FINLAND |
| TURATTO, Massimo | Instituto Nazionale Di Astrofisica | ITALY |
| TURCK-CHIEZE, Sylvaine | SAP/DAPNIA/DSM/CEA | FRANCE |
| TURNER, Jean | UCLA | USA |
| TURNER, Nils | Georgia State University | USA |
| TURTLE, Anthony | The University of Sydney | AUSTRALIA |
| TUTHILL, Peter | The University of Sydney | AUSTRALIA |
| TYLER, G. Leonard | Stanford University | USA AUSTRALIA |
| TZANAVARIS, Panayiotis | The University of New South Wales | THE NETHERLANDS |
| TZIOUMS Apartosics | Sterrekundig Instituut, Universiteit Utrecht | AUSTRALIA |
| TZIOUMIS, Anastasios | ATNF/CSIRO | POLAND |
| UDALSKI, Andrzej UDAYA SHANKAR, Narayana Rao | Warsaw University Observatory Raman Research Institute | INDIA |
| UITENBROEK, Han | National Solar Observatory | USA |
| UJIHARA, Hideki | National Astronomical Observatory | JAPAN |
| UMEKAWA, Michihisa | Kyoto University | JAPAN |
| UMEMOTO, Tomofumi | National Astronomical Observatory | JAPAN |
| URBAN, Sean | U.S. Naval Observatory | USA |
| VAISANEN, Petri | European Southern Observatory | CHILE |
| VALDEZ-GUTIERREZ, Margarita | Mount Stromlo Observatory | AUSTRALIA |
| VALENZIANO, Luca | CNR- IASF | ITALY |
| VALSECCHI, Giovanni Battista | Istituto Di Astrofisica Spazinie E Fisica Cosmica | ITALY |
| VAN ALTENA, William F | Yale University | USA |
| VAN BREUGEL, Wil | UC / LLNL | USA |
| VAN CITTERS, Wayne | NSF | USA |
| VANDAS, Marek | Astronomical Institute | CZECH REPUBLIC |
| VANDENBERG, Don | University of Victoria | CANADA |
| | - | |

| Name | Organisation | Country |
|----------------------------|---|--------------------|
| VAN DER HUCHT, Karel A. | Space Research Organization Netherlands | THE NETHERLANDS |
| VAN DER HULST, J.M. | Kapteyn Astronomical Institute | THE NETHERLANDS |
| VAN DER KRUIT, Pieter C. | Kapteyn Astronomical Institute | THE NETHERLANDS |
| VAN DER SWALUW, Eric | FOM Institute For Plasma Physics Rijnhuizen | THE NETHERLANDS |
| VAN DER TAK, Floris | Max-Planck-Institute For Radioastronomy | GERMANY |
| VAN DE VEN, Glenn | Sterrewacht Leiden | THE NETHERLANDS |
| VAN DISHOECK, Ewine F | Leiden Observatory | THE NETHERLANDS |
| VAN DRIEL, Wim | Observatoire De Paris-Meudon | FRANCE |
| VAN DRIEL-GESZTELYI, Lidia | University College London | FRANCE |
| VAN DYK, Schuyler | IPAC/Caltech | USA |
| VAN GORKOM, Jacqueline | Columbia University | USA |
| VAN KERKWIJK, Marten | University of Toronto | CANADA |
| VAN LEEUWEN, Joeri | Utrecht University | THE NETHERLANDS |
| VASAN, Arvind | The University of Melbourne | AUSTRALIA |
| VAUCLAIR, Sylvie | Observatoire Midi-Pyrenees | FRANCE |
| VAUGHAN, Alan | Macquarie University | AUSTRALIA |
| VAZQUEZ-SEMADENI, Enrique | Instituto De Astronomia-Morelia, UNAM | MEXICO |
| VEILLET, Christian | Canada-France-Hawaii Telescope Corporation | USA |
| VEILLEUX, Sylvain | University of Maryland | USA |
| VELUSAMY, Thangasamy | Jet Propulsion Laboratory | USA |
| VENNES, Stephane | Australian National University | AUSTRALIA |
| VERBUNT, Frank | Astronomical Institute Utrecht | THE NETHERLANDS |
| VERDES-MONTENEGRO, Lourdes | Instituto De Astrofisica De Asdaleca | SPAIN |
| VERHEIJEN, Marc | Astrophysical Institute Potsdam | GERMANY |
| VERNER, Ekaterina M. | NASA/GSFC | USA |
| VESPERINI, Enrico | Michigan State University | USA |
| VIANA, Pedro | Universidade Do Porto | PORTUGAL |
| VIDAL-MADJAR, Alfred | Institut D'Astrophysique De Paris | FRANCE |
| VIIK, Tonu (Tony) | Tartu Observatory | ESTONIA |
| VINK, Jacob | Columbia University | USA |
| VONDRAK, Jan | Astronomical Institute | CZECH REPUBLIC |
| VON HIPPEL, Ted | The University of Texas At Austin | USA |
| VORONKOV, Maxim | ATNF/CSIRO | AUSTRALIA |
| VRANESEVIC, Natasa | The University of Sydney | AUSTRALIA |
| VRTILEK, Jan M. | Harvard-Smithsonian Center For Astrophysics | USA |
| VRTILEK, Saeqa Dil | Harvard-Smithsonian Center For Astrophysics | USA |
| WADHWA, Surjit Singh | University of Wollongong | AUSTRALIA |
| WAGNER, Stefan | Landessternwarte | GERMANY |
| WAINSCOAT, Richard | University of Hawaii | USA |
| WAKAMATSU, Ken-Ichi | Gifu University | JAPAN |
| WAKKER, Bart | University of Wisconsin-Madison | USA |
| WALKER, Christina | University of St Andrews | UK |
| WALKER, Constance | National Optical Astronomy Observatory | USA |
| WALKER, Mark | The University of Sydney | AUSTRALIA |
| WALKER, Matthew G. | University of Michigan | USA |
| WALL, Jasper | University of British Columbia | CANADA |
| WALLACE, Patrick | Rutherford Appleton Laboratory | UK |
| WALSH, Andrew | Harvard-Smithsonian Center For Astrophysics | USA |
| WALSH, Robert | Centre For Astrophysics | UK |
| WALSH, Wilfred | Harvard Smithsonian Center For Astrophysics | USA |
| WALTER, Fabian | National Radio Astronomy Observatory | USA |
| WALTER, Frederick M. | Stony Brook University | USA |
| WALTON, Nicholas | University Of Cambridge | UK |
| WAMBSGANSS, Joachim | Universitaet Potsdam | GERMANY |
| WANG, Hua-Xiang | Urumqi Astronomical Observatory, NAOC | CHINA |
| WANG, Jingxiu | National Astronomical Observatories, CAS | CHINA |
| WANG, Jun-Jie | National Astronomical Observatories, CAS | CHINA |
| WANG, Nina | The University of Sydney | AUSTRALIA |
| WANG, Tonjiang | Max-Planck-Institute For Astronomy | GERMANY |
| WANG, Xiankun | Shanghai Astronomical Observatory | CHINA AUSTRALIA |
| WANG, Xuyan Rosalind | The University of Sydney | AUSTRALIA |

| Name | Organisation | Country |
|----------------------------------|---|--------------|
| WANG, Yiping | Purple Mountain Observatory | CHINA |
| WANG, Zhengming | ShaaXi Astronomical Observatory | CHINA |
| WARD, Martin | University of Leicester | UK |
| WARD-THOMPSON, Derek | Cardiff University | UK |
| WARDLE, Mark | Macquarie University | AUSTRALIA |
| WARELL, Johan | Uppsala University | SWEDEN |
| WARK, Robin | ATNF/CSIRO | AUSTRALIA |
| WARNER, Brian | University of Cape Town | SOUTH AFRICA |
| WARR, George | ATNF/CSIRO | AUSTRALIA |
| WARREN, Bradley Evan | Australian National University | AUSTRALIA |
| WARREN, Harry | Naval Research Laboratory | USA |
| WARREN, Steve | Imperial College London | UK |
| WATANABE, Jun-Ichi | National Astronomical Observatory | JAPAN |
| WATANABE, Naoki | Hokkaido University | JAPAN |
| WATSON, Christopher | University of Sheffield | UK |
| WATSON, Fred | Anglo-Australian Observatory | AUSTRALIA |
| WAUGH, Meryl | The University of Melbourne | AUSTRALIA |
| WAYTH, Randall | The University of Melbourne | AUSTRALIA |
| WEBB, David | Boston College | USA |
| WEBB, John | The University of New South Wales | AUSTRALIA |
| WEBSTER, Rachel Lindsey | The University of Melbourne | AUSTRALIA |
| WEBSTER, Zodiac | California State University | USA |
| WEHLAU, Amelia | The University of Western Ontario | CANADA |
| WEINER, Benjamin | UCO/Lick Observatory | USA |
| WEIS, Edward | Wesleyan University | USA |
| WEISHEIT, Jon | Los Alamos National Laboratory | USA |
| WEISS, Achim | Max-Planck-Institute For Astrophysics | GERMANY |
| WEISS, Werner W. | Department Of Astronomy | AUSTRIA |
| WELCH, Doug | McMaster University | CANADA |
| WELDRAKE, David Thomas Frederick | Australian National University | AUSTRALIA |
| WELLS, Donald C | National Radio Astronomy Observatory | USA |
| WELSCH, Brian | University of California | USA |
| WELTY, Daniel | University of Chicago | USA |
| WEST, Michael | University of Hawaii | USA |
| WHEATLAND, Mike | The University of Sydney | AUSTRALIA |
| WHITE, Gavin | Vision Design Studio | AUSTRALIA |
| WHITE, Graeme | James Cook University | AUSTRALIA |
| WHITE, James | Rhodes College | USA |
| WHITE, Simon | Max-Planck-Institute For Astrophysics | GERMANY |
| WHITELOCK, Patricia | South African Astronomical Observatory | SOUTH AFRICA |
| WHITEOAK, John | ATNF/CSIRO | AUSTRALIA |
| WHITING, Alan | Cerro Tololo Inter-American Observatory | CHILE |
| WHITING, Matthew | The University of New South Wales | AUSTRALIA |
| WHITWORTH, Anthony | Cardiff University | UK |
| WICKRAMASINGHE, Dayal | Australian National University | AUSTRALIA |
| WICKRAMASINGHE, Thulsi | The College of New Jersey | USA |
| WIDEMANN, Thomas | Observatoire De Paris-Meudon | FRANCE |
| WIELEBINSKI, Richard | Max-Planck-Institute For Radioastronomy | GERMANY |
| WIERINGA, Mark | ATNF/CSIRO | AUSTRALIA |
| WIKLIND, Tommy | Space Telescope Science Institute | USA |
| WILKINSON, Mark | University Of Cambridge | UK |
| WILKINSON, Philip James | IPS Radio & Space Services | AUSTRALIA |
| WILLES, Andrew | University of Sydney | AUSTRALIA |
| WILLIAMS, Gareth | Smithsonian Astrophysical Observatory | USA |
| WILLIAMS, Iwan | Queen Mary, University Of London | UK |
| WILLIAMS, Kurtis | Steward Observatory | USA |
| WILLIAMS, Mary Elaine Kathleen | Australian National University | AUSTRALIA |
| WILLIAMS, Peter | Shanghai Astronomical Observatory | CHINA |
| WILLIAMS, Robert | Space Telescope Science Institute | USA |
| WILLIAMS, Thomas R. | Rice University | USA |
| WILLIS, Allan James | University College London | UK |
| | | |

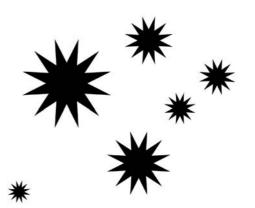
| Name | Organisation | Country |
|--|---|----------------|
| WILLIS, Jon Paul | European Southern Observatory | CHILE |
| WILNER, David | Harvard-Smithsonian Center For Astrophysics | USA |
| WILSON, Reg | | AUSTRALIA |
| WILSON, Robert E | Astronomy Department | USA |
| WIMMER-SCHWEINGRUBER, Robert | Extraterrestrial Physics | GERMANY |
| WING, Robert F. | The Ohio State University | USA |
| WINKLER, P. Frank | Middlebury College | USA |
| WOLF, Sebastian | California Institute Of Technology | USA |
| WOLFE, Arthur | University of California | USA |
| WOLFF, Sidney | National Optical Astronomy Observatory | USA |
| WOLK, Scott | Harvard-Smithsonian Center For Astrophysics | USA |
| WOLTJER, Lodewijk | Observatoire De Haute Provence | FRANCE |
| WONG, O. Ivy | The University of Melbourne | AUSTRALIA |
| WONG, Tamae | US National Academy of Sciences | USA |
| WONG, Tony | ATNF/CSIRO | AUSTRALIA |
| WOOD, Kent S. | Naval Research Laboratory | USA |
| WOODEN, Diane | NASA Ames Research Center | USA |
| WOODEN, William | U.S. Naval Observatory | USA |
| WOODS, Leslie | University of Oxford | UK |
| WORRALL, Diana | University of Bristol | UK |
| WOUDT, Patrick Alan | University of Cape Town | SOUTH AFRICA |
| WRIGHT, Jason | University of California | USA |
| WU, Kinwah | University College London | UK |
| WU, Phillip | | |
| WU, Shi Tsan | The University of Alabama In Huntsville | USA |
| WULANDARI, Hesti | TU Munich | GERMANY |
| WYITHE, Stuart | The University of Melbourne | AUSTRALIA |
| WYSE, Rosemary | The Johns Hopkins University | USA |
| XIA, Xiaoyang | Tianjin Normal University | CHINA |
| XU, Dawei | National Astronomical Observatories, CAS | CHINA |
| XU, Renxin | Peking University | CHINA |
| XUE, Suijian | National Astronomical Observatories, CAS | CHINA |
| YAHAGI, Hideki | National Astronomical Observatory | JAPAN JAPAN |
| YAMAGUCHI, Nobuyuki | National Astronomical Observatory | |
| YAMAOKA Jirashi | Nagoya University | JAPAN JAPAN |
| YAMASUTA Karing | Kyushu University | JAPAN |
| YAMASHITA, Koujun YAMASHITA, Takuya | Nagoya University Subaru Telescope, NAOJ | USA |
| YAN, Yihua | National Astronomical Observatories, CAS | CHINA |
| YANAMANDRA-FISHER, Padma | Jet Propulsion Laboratory | USA |
| YANG, Dehua | Nanjing Institute Of Astronomical Optics & Technology | CHINA |
| YANG, Tinggao | ShaaXi Astronomical Observatory | CHINA |
| YANO, Taihei | National Astronomical Observatory | JAPAN |
| YAO, Dazhi | Purple Mountain Observatory | CHINA |
| YAO, Yongqiang | Purple Mountain Observatory | CHINA |
| YAQOOB, Tahir | Johns Hopkins University | USA |
| YASUDA, Naoki | National Astronomical Observatory | JAPAN |
| YE, Binxun | National Astronomical Observatories, CAS | CHINA |
| YE, Shuhua | Shanghai Astronomical Observatory | CHINA |
| YEOMANS, Donald | Jet Propulsion Laboratory | USA |
| YI, Meiliang | National Astronomical Observatories, CAS | CHINA |
| YISHAMUDING, Aili | Urumqi Observotry | CHINA |
| YOCK, Philip | University of Auckland | NEW ZEALAND |
| YOKOGAWA, Sozo | The Graduate University for Advanced Studies | JAPAN |
| YONEHARA, Atsunori | University Of Tsukuba | JAPAN |
| YORKE, Harold W. | Jet Propulsion Laboratory | USA |
| YOSHIDA, Michitoshi | Okayama Astrophysical Observatory | JAPAN |
| YOSHIKAWA, Makoto | Institute Of Space & Astronautical Science | JAPAN |
| YOSHIMURA, Hirokazu | University of Tokyo | JAPAN |
| YOUNG, Matthew | The University of Western Australia | AUSTRALIA |
| YU, Zhi-Yao | Shanghai Astronomical Observatory | CHINA |
| | | |

| Name | Organisation | Country |
|----------------------|---|--------------------|
| YUAN, Qirong | Nanjing Normal University | CHINA |
| YUNGELSON, Lev | Russian Academy Of Sciences | RUSSIAN FEDERATION |
| ZACHARIAS, Marion I. | U.S. Naval Observatory, AD | USA |
| ZACHARIAS, Norbert | U.S. Naval Observatory, AD | USA |
| ZACKRISSON, Erik | Uppsala Astronomical Observatory | SWEDEN |
| ZACS, Laimons | Institute Of Atomic Physics & Spectroscopy | LATVIA |
| ZEALEY, William | University of Wollongong | AUSTRALIA |
| ZEPF, Stephen | Michigan State University | USA |
| ZHANG, Chengmin | The University of Sydney | AUSTRALIA |
| ZHANG, Heng | Yunnan Observatory | CHINA |
| ZHANG, Honqqi | National Astronomical Observatories, CAS | CHINA |
| ZHANG, Jun | National Astronomical Observatories, CAS | CHINA |
| ZHANG, Qizhou | Harvard-Smithsonian Center For Astrophysics | USA |
| ZHANG, Shuang Nan | Tsinghua University | CHINA |
| ZHANG, Xiaolei | US Naval Research Laboratory | USA |
| ZHANG, Youhong | Tsinghua University | CHINA |
| ZHAO, Haibin | Purple Mountain Observatory | CHINA |
| ZHAO, Junliang | Shanghai Astronomical Observatory | CHINA |
| ZHAO, Xuepu | Stanford University | USA |
| ZHAO, Yongheng | National Astronomical Observatories, CAS | CHINA |
| ZHARKOVA, Valentina | Bradford University | UK |
| ZHOU, Ji-Lin | Nanjing University | CHINA |
| ZHOU, Jianfeng | Tsinghua University | CHINA |
| ZHU, Yongtian | Nanjing Institute Of Astronomical Optics & Technology | CHINA |
| ZINNECKER, Hans | Astrophysical Institute Potsdam | GERMANY |
| ZISKIN, Viktor | Institut D'Astrophysique De Paris | FRANCE |
| ZIURYS, Lucy M. | University of Arizona | USA |
| ZUO, Yingxi | Purple Mountain Observatory | CHINA |
| ZWAAN, Martin | The University of Melbourne | AUSTRALIA |
| | | |

ANNEX 13

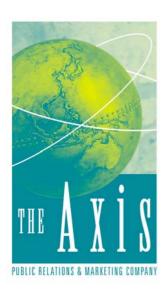
The Australian Festival of Astronomy

meet the stars - all july 2003



MARKETING REPORT

Prepared by Paula Opfer – The Axis Public Relations & Marketing Company Prepared on 28/8/03



EXECUTIVE SUMMARY

Objective:

Using a budget of \$20,000 including expenses over the month of July to:

generate general awareness, interest and knowledge of astronomy;

generate attendance at the public associated events for the IAU's 25th General Assembly.

Strategies

- 1) To publicise the speakers for the public talks and their specific topics by relevance/by location;
- 2) To publicise The Australian Festival of Astronomy's general events program and specific major events; and
- 3) To organise giveaways to AstroExpo and the three major talks at the Harbourside Auditorium.

This was achieved by using existing interview and media resources and by developing new media contacts.

<u>Coverage Achieved – APPENDIX 0</u>

The media coverage attained equated to: \$1,451,242 in advertising buy value and \$27,573,598

Press & Print Coverage

Advertising Value: \$253,315 based on casual advertising rates

Editorial Value: \$4,812,985 in terms of publicity value.

Television Coverage

Advertising Value: \$380,638 based on casual advertising rates

Editorial Value: \$7,232,122 in terms of publicity value.

Radio Coverage

Advertising Value: \$817,289 based on casual advertising rates

Editorial Value: \$15,528,486 in terms of publicity value.

Website Coverage

Not monitored thoroughly.

Public Attendance

The following figures have been supplied:

Sydney Public Events

Friday 11 July David Malin - 280

Saturday 12 July Bryan Gaensler - 120

Sunday 13 July Heather Couper & Nigel Henbest - 170

Monday 14 July Paul Davies - 500 (including IAU participants)

Thursday 17 July - Asteroid forum - 300 (including IAU participants)

Friday 18 July - Heather Couper & Nigel Henbest, Parramatta - 250

Saturday 19 July - AstroExpo 4 talks - each 120

Sunday 20 July - AstroExpo 3 talks - each 120

Sunday 20 July - AstroExpo 1 talk (Experiencing the Cosmos) - 40

Sunday 20 July - Dr Jill Tarter, Parramatta - 220

Sunday 20 July - FANS North Sydney - 2075

Monday 21 July - Bob Kirshner - 450 (including IAU participants)

Saturday 26 July - Teachers Day - 41

Outside Sydney Talks

Perth - Don Kurtz - 175

Melbourne - Don Kurtz - 49

Melbourne - Heather Couper & Nigel Henbest - 70

Brisbane - Heather Couper & Nigel Henbest - 200

Wagga - Heather Couper - 120

Parkes - Nigel Henbest - 67

Canberra - Robert Walsh - 51

Adelaide - Robert Walsh - 100

Wollongong - Robert Walsh - 95

CONSIDERATIONS FOR NEXT CONFERENCE

Budget

PR budget was far from sufficient. Over half went to expenses including flyer production, printing and distribution, postage, logo design, media monitoring, parking, couriers, internal printing, stationery, international, interstate and mobile telephone calls etc.

Given that approximately 300head hours were invested into this project at a senior consultant rate of \$150per hour the true cost should have been \$45,000 for head hours alone.

<u>Advertising</u>

Major talks needed advertising support. As these talks were either topical or of general interest to the media so many of the media did not cover the event until afterwards as actually attended for further research.

Lead Time

The publicity program started six weeks prior and needed to be at least eight to 12 weeks prior primarily for sourcing information and securing exposure in long lead publications and special features.

Conference and Festival Publicity Consideration

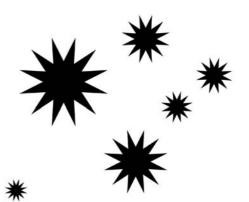
The sheer amount of stories presented to the media in such a short amount of time ended up causing saturation with stories being rejected by the second week of the conference/third and fourth week of the public program.

LOGO

Repositioned the public associated events of the IAU 25th General Assembly under the banner of:

The Australian Festival of Astronomy

meet the stars - all july 2003



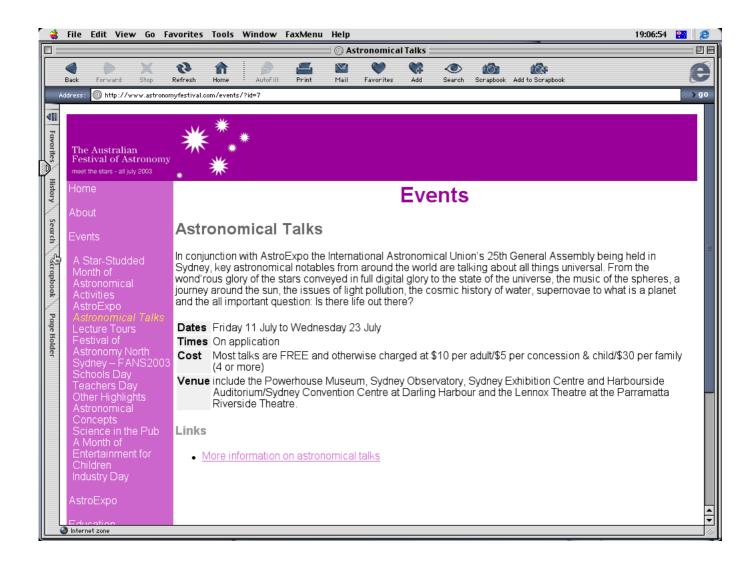
This logo was used on all publicity material, advertisements, promotional flyer, lecterns and presentation backgrounds.

Banners at major RTA bridges were considered but cost vs relevant exposure negated this option.

WEBSITE

Registered the domain name: www.astronomyfestival.com

Site included information on all the public events, profiles on the speakers and the exhibitors (including links to their websites) with a daily bulletin board on the home page.



The site could be accessed via the home page of www.astronomy2003.com or independently.

The site was up from July 1 and promoted through all media releases and some articles.

MEDIA BRIEFING AND MEDIA KIT

Media Briefing

A media briefing was initiated to incite interest in the festival and conference.

This was held at Sydney Observatory and included Professor Ron Ekers on how Australia fits into the global picture of Astronomy and the significance of the IAU meeting, Nick Lomb on the festival program, Tony Barry of Connell Wagner on Australian industry's involvement with astronomy and David Malin on Astronomy's role in the discovery and development of Australia,

Attendees included: Sydney Morning Herald News, Sun Herald Science, Radio National Breakfast, ABC News, ABC Online, Channel 7 Big Arvo, Scicom, AAP and members of the German and Japanese press.

Direct response was SMH page 5 and ABC News interview with Ron Ekers and five week interview series on Radio National Breakfast, Big Arvo segment to be aired September, AAP interest in the festival and international press interest in the conference.

Media Kit – APPENDIX 1

A media kit was developed which covered the festival program, speakers and their talks, calendar of events, AstroExpo and its specialist days as well as Conference content and media registration.

The kit was disseminated to attendees and to key media who were unable to attend.

All the media were followed up and elements of the kit were then expanded and distributed to specifically targeted mediums.

SPEAKER PROGRAM ARTICLES AND MAJOR EVENTS

Speakers - APPENDIX 2

Articles focusing on speakers and more indepth information on their talks supported by visuals were disseminated to targeted media as appropriate. They were also tailored to suit the venue and/or location – this was particularly relevant for the interstate talks.

Giveaways were organised with City Weekly for the Harbouside Talks. Book giveaways were also organised but not used.

Festival - APPENDIX 3

The festival calendar of events was broken down by week and targeted to the entertainment and children's TV programming media. Plus a children's media release was distributed to promote the school holidays program covering the events at both Sydney Observatory and Powerhouse Museum.

AstroExpo - APPENDIX 4

AstroExpo and its individual program was publicised to a wide target media using a variety of angles including the Live Cross, the speaker's specialties and the Schools Day.

It was promoted with a giveaway campaign on the afternoon program for both Saturday and Sunday on Radio 2GB. Tickets were also given away through NewScientist and Night Sky.

Festival of Astronomy North Sydney - APPENDIX 5

This was publicised within the local community, to the metro and to the electronic media. Again a variety of angles were used from amateur astronomy, opposition of Mars, David Malin's images, light pollution and location/local business community co-operation.

Education - APPENDIX 6

Publicised the Schools Day and Teachers Day programs to the education media.

Careers

Organised profile story with a young astronomer to promote Astronomy as a career.

Other Opportunities

Publicised the fact that Mars was in opposition in August to leverage the Mars talks.

DIRECT MAIL

Festival Flyer - APPENDIX 7

Developed, produced and printed 7,500 flyers for distribution to conference delegates in their bags, at registration desks and notice boards, Sydney Observatory reception, Sydney Observatory talk, Powerhouse Museum reception and cloaking, at Powerhouse Museum talks, at Harbourside Auditorium talks, to AAO and ATNF lists and to North Sydney community. It was also placed in The Magellanic Times on Day One.

Education Flyers - APPENDIX 8

Developed, produced, printed and distributed Schools Day and Teachers Day Flyers to metro schools' science teachers.

Sourced list through Michael Burton at University of New South Wales.

Powerhouse Museum E.Newsletter - APPENDIX 9

General information on Festival included within the July members newsletter.

Suburban Mail Drop

This was researched but not proceeded with due to distribution costs.

ADVERTISING

David Malin Advertisement - APPENDIX 10

This was funded by a trust.

Wrote, designed and bought media space. Secured page 3 of Sydney Morning Herald on 9/7.

NewScientist Advertisements - APPENDICES 11 & 12

These advertisements were contra for a display stand at AstroExpo.

Design and artwork costs were funded through the PR budget.

The first advertisement covered The Australian Festival of Astronomy.

The second was advertisement focused on AstroExpo.

Special Feature

Approached Sun Herald but was advised that a special feature would need to have been presented for consideration some 18months prior.

Approached Sunday Telegraph and supplied list of potential advertisers. These contacts were approached but were not prepared to invest so the feature did not proceed.