



ASTRONOMICAL SOCIETY OF AUSTRALIA

Incorporated in the ACT
ABN 37 660 297 848

PRESIDENT'S REPORT

UNIVERSITY OF ADELAIDE, 5 JULY 2011

1. Highlights

Significant achievements and recognition of ASA members

I'd like to recognise the following Society members for their achievements over the last year:

- Prof Bryan Gaensler - winner of the 2011 Pawsey Medal from the Australian Academy of Science and appointment as an Australian Laureate Fellow.
- Dr Marc Duldig - President of the Australian Institute of Physics.

I congratulate Bryan and Marc on their awards and achievements.

The Astronomy Mid-Term Review process

As the Society's representative on the National Committee for Astronomy (NCA), I'm pleased to report that the Astronomy "Mid-Term Review" was launched on July 4 by Professor Elaine Sadler (NCA chair) and Dr Paul Willis (Royal Institution of Australia Director). The review finds that, whilst considerable funding has been obtained for new telescope and computing infrastructure, there remain challenges in the remaining part of the decade in obtaining access to sufficient '8-metre' telescope time and in finding operating funds for existing and future facilities. I note that the new, expanded format of the ASA's Annual Scientific Meeting has permitted sufficient time to be set aside for updates and discussions of the future of the AAO, ESO membership, GMT and SKA.

CAASTRO, MoCA and MRCAA

I very pleased to note that, since the last President's report, the Australian Research Council awarded funding to the Centre of Excellence for All-sky Astrophysics (or CAASTRO). This new \$29M Centre, directed by Professor Bryan Gaensler of Sydney University, is funded for seven years and involves five other Australian Universities and a number of other Australian and overseas research institutes. The three research themes are "The Dark Universe", "The Evolving Universe" and "The Dynamic Universe". The main research projects are focussed around observational programs with ASKAP, MWA, SkyMapper and the AAT. I'm particularly pleased that my absence from the first day of the 2010 Annual Scientific Meeting (along with other members of the CAASTRO executive team), due attending the CAASTRO interview in Canberra, was not in vain!

I'm also pleased to note the formation of an integrated astrophysics group at Monash University, to be known as the Monash Centre for Astrophysics (MoCA) and the new Macquarie Research Centre in Astronomy, Astrophysics & Astrophotonics at Macquarie University.

Square Kilometre Array

With the SKA siting decision almost upon us, it was gratifying to hear of the Government's continued strong support for the SKA project through its allocation of \$40.2M in the recent Federal budget. This funding is intended to support Australia's involvement in the pre-construction phase of the SKA in the period 2013-2015, should Australia win the siting bid. Many of our SKA colleagues have made their way to Banff, Canada for the SKA Forum which, unfortunately, is occurring at the same time as our Annual Scientific Meeting. We wish them, and the Minister, well in their endeavours to ensure that the SKA becomes a reality and is built in the best possible location!

Access to Major Research Facilities Program

On a slightly more negative note, the ANSTO-run Access to Major Research Facilities Program (AMRFP) has been terminated, also as part of recent budget announcements. Although the average annual contribution to astronomy was a relatively small \$100k, averaged over the last five years, it was one of the few ways that many researchers were able to access those world-class overseas facilities which only permit 'classical' observing. I have written to the Minister expressing the concern of the many Society members who contacted me, and the Society will continue to work with our other national bodies to ensure a satisfactory resolution is

obtained.

Code of Ethics

One of the Council's priorities over the last year was to define a code of ethics to help govern the behaviour of members. This code can be found at the Society's web site and, whether senior or junior, I recommend that members review this code, which covers conduct to others, research integrity, publication practices, peer review and conflicts of interest. The code is intended as a guide to our junior members and a reminder to our more senior members. However, clear violations of this code may result in an expulsion from the Society.

Donations

It may come as a surprise to some members, but the ASA is the regular beneficiary of donations from members and benefactors. These donations greatly help us to run the Society and provide our members with a large range of benefits over and above what our subscription fees alone can achieve. Charitable donations to the ASA's Foundation for the Advancement of Astronomy are tax-deductible and go into items such as student workshops, prizes, travel grants and outreach.

I'm therefore extremely pleased to report the launch of the Richard Cole Fund by Dr Martin Cole, until recently the chair of Astronomy Australia Ltd. Martin donated \$30k in memory of his son, Richard, who died tragically some years ago - see <http://asa.astronomy.org.au/cole.html>. Together with another, anonymous, donation of \$10k¹, this funding will be used by the Society to keep our theory and astroinformatics student workshops going for many more years. Funding for these meetings has previously come from the almost-expired surplus funds from the 2003 IAU General Assembly in Sydney. I would like to thank Martin and our anonymous benefactors, past and present, for their great generosity towards astronomy.

Astroinformatics and HWWS Graduate Schools

Two of this year's ASA-sponsored schools have been the *Astroinformatics School*, held at ICRAR/UWA in Perth from 16 to 18 February, and the *Harley Wood Winter School (HWWS)*, held at Victor Harbor, South Australia from 1 to 3 July. These schools are important for student training, but also help students establish themselves within the broader astronomical community.

The 4th astroinformatics school had 59 attendees (including a few international) and was ably chaired by Chris Harris (LOC) and Tara Murphy (SOC). This was the first time the school was held away from The University of Sydney. The ASA will be looking for other "friendly" institutes in future to share the burden of organising these incredibly valuable schools! In a sign of coming change in processing requirements for astronomy, this year's school included sessions in parallel computing. The only disappointing aspect of the school was the fact that 10-15 people were turned away due to oversubscription.

The theme of the HWWS was "Critical Problems in Astrophysics" and was attended by 77 students. The ASA is particularly grateful to the LOC, SOC and the speakers for giving up their valuable time to lecture at the school.

2. ASA Membership

The last year has seen a dramatic increase in Society membership. Over this period, the number of individual financial members has increased from 510 to 563. On behalf of the Society, I would like to welcome our new members. I encourage them to be active and visible participants within the Society, through attendance at its meetings, schools and, if appropriate, participation in its three Chapters. I also remind senior members of the option of upgrading their membership to the status of "Fellow". See the Society's web pages for details.

It is also with much pleasure that I announce the Council's appointment of Professor Elaine Sadler as an Honorary Fellow of the Society. Elaine is awarded this status in recognition of her service to astronomy and her considerable research contributions in optical and radio astronomy. Elaine is a past-President of the ASA and is currently NCA chair. Her recent stewardship of the Mid-Term Review process exemplifies her commitment to astronomy.

3. PASA

The *Publications of the ASA (PASA)* continues to thrive under the leadership of Professor Bryan Gaensler and his editorial colleagues: Michael Burton, Duncan Forbes, Jeremy Mould, Daniel Price, Stuart Ryder and Stuart Wyithe, ably assisted by CSIRO Publishing. I'm delighted to announce that a new International Advisory Panel (IAP) has been formed to act as an advisory and advocacy body. The foundation IAP members are: Harvey Butcher (Australia), Victoria Kaspi (Canada), Avi Loeb (USA), Karl Menten (Germany) and Ravi Subrahmanyan (India). Five additional members will shortly be appointed. Although the "impact factor" of

¹ This donation was processed after 31 March, so will appear on the Society's financial statement for 2011/12.

PASA has not reached the dizzying heights of 2010, the long-term upward trend is satisfactory, and we expect continuing high impact factors in future years. PASA currently ranks 29 out of the 54 astronomy journals tracked by Thomson/ISI.

A major new initiative for PASA is the introduction of the *Dawes Review*, named after Australia's first official astronomer in the colony, William Dawes. These will be substantial reviews on topics of high interest and will be written by astronomers of international standing at the invitation of the Editorial Board. It is a pleasure to announce that the first review has been commissioned from Prof Karl Glazebrook.

4. **Loss of prominent Society members and colleagues**

It is with sadness that I note the passing of the following individuals who have prominently featured in Australian astronomy:

Venkatraman Radhakrishnan: a Professor Emeritus at the Raman Research Institute, Rad pioneered 21cm emission and absorption studies of the interstellar medium, and the interpretation of pulsar emission during his time in Australia. He continued to attend lectures and conferences to the end, and was a mentor to many young and not-so-young astronomy colleagues.

Bernie Mills: Emeritus Professor Bernie Mills was a founding father of Australia radio astronomy, inventing the Mills Cross and later building the Molonglo Cross (now MOST). He was responsible for creating the ground-breaking Molonglo Reference Catalogue. He was awarded the 2006 Grote Reber Medal for his pioneering contributions to radio astronomy.

Bill Ellis: a former head of Physics at the University of Tasmania and a leader in cosmic ray and astrophysics research. He was a foundation member of the precursor to the Australian Research Council and President of the ASA from 1975-76.

Arthur Page: a foundation member of the ASA, together with his wife Berenice. Although not professional astronomers, Arthur and Berenice made valuable contributions to the IAU Flare Star program in the 1960's. The Berenice Page medal, awarded every two years for excellence in amateur astronomy, was inaugurated by the ASA in 1972 in memory of Berenice. I'm please to say that permission from the family has obtained to rename the medal the 'Berenice and Arthur Page Medal'.

5. **Robert Ellery Lectureship**

The Robert Ellery lectureship is awarded every two years for outstanding contributions to astronomy or a related field. Robert Ellery was the Director of Melbourne Observatory for much of the second half of the 19th century, and one of the outstanding workers in Australian astronomy in that era. The 2011 Robert Ellery Lectureship is awarded to Prof Russell Cannon. Professor Cannon has been influential in astronomy for over four decades. He was Director of the AAO from 1986 to 1996, during which time he oversaw the construction of the successful and innovative 2dF instrument for the Anglo-Australian Telescope, and was a key researcher in several important scientific programmes undertaken by that instrument. He also led the way for a series of highly successful AAT observations of Supernova 1987A. He is well known for his work on stellar populations, in particular those in clusters and nearby galaxies and was responsible for the discovery, using UK Schmidt plates of the nearby Carina dwarf galaxy.

6. **Harley Wood Lecturer**

The ASA created the annual Harley Wood Public Lecture in honour of the first President of the ASA, who was also the NSW Government Astronomer at the Sydney Observatory for more than 30 years. The focus of this award is to enhance the public appeal of astronomy and the aim is to select renowned and exciting speakers who will carry on the legacy established by Harley Wood. The Harley Wood Lecturer for 2011 is **Prof Fred Watson** from the AAO, a past winner of the Eureka Prize, who will talk on "How Green is the Universe" at the public lecture to be delivered on July 5.

7. **The Louise Webster Prize**

The Louise Webster Prize for Early Career Researchers is in its third year. The prize honours Dr Louise Webster who was an inaugural staff astronomer at the AAO, and later an academic staff member in the School of Physics at UNSW. She passed away in 1990 at the age of 49, after a long illness. Louise was passionate about promoting astronomy to young people and the importance of mentoring her younger colleagues in the early stages of their research careers. It is with great pleasure to announce the 2011 winner is **Dr Gayandhi De Silva**, currently a research astronomer at the AAO, for her nominated paper (written whilst at RSAA/ANU): "Chemically Tagging The HR 1614 Moving Group" (G.M. De Silva, K.C. Freeman, J. Bland-Hawthorn, M. Asplund, M.S. Bessell, 2007, AJ, 133, 694, 2007).

8. Charlene Heisler Prize

Each year, the ASA commemorates the contributions to astronomy of Dr Charlene Heisler – who during her short career became particularly well known for her encouragement and mentoring of students – by awarding a prize to the author of the best PhD thesis in astronomy or a closely related field, accepted by an Australian university in the previous calendar year. This year the prize is awarded to **Dr Max Spolaor** for his Swinburne University thesis entitled “Radial Gradients in Elliptical Galaxies”. The assessment panel also recommended that Dr Shari Breen receive a special commendation for her University of Tasmania thesis entitled “Interstellar masers as evolutionary tracers of high-mass star formation”.

9. Bok Prize

The Bok Prize is awarded annually for outstanding research in astronomy by an Honours student at an Australian university. It remembers Bart Bok, a former Director of Mount Stromlo Observatory, who energetically promoted the undergraduate and graduate study of astronomy in Australia. This year, the Prize is awarded to **Barnaby Norris** for his University of Sydney thesis “A study of AGB circumstellar dust shells using optical polarimetric interferometry”. The selection committee also commends Andrew Ahmat (UWA) and Andrew Cameron (UNSW). Congratulations to all!

10. SmP2011

Science meets Parliament (SmP) is an annual event organised by Science and Technology Australia (formerly FASTS), where members of its affiliated associations and societies gather at Federal Parliament in Canberra to primarily to talk to politicians about their research and broader science issues. This year, SmP was held on 20-21 June, and the ASA was ably represented by Sarah Brough (AAO) and John O'Byrne (U.Sydney). Daniel Bayliss, Marc Duldig and George Hobbs were also present, representing Fresh Science, Science and Technology Australia, and CSIRO, respectively. During SmP, the "Respect the Science" web site was launched. I urge members to look at this web site, which is linked from the ASA home page, and consider how they can help in the process of educating the public about the "scientific process".

11. Women in Astronomy

This new chapter has thrived under the leadership of Sarah Maddison in the past year. The Chapter now has 78 members, has a website (linked to the ASA web pages), a steering committee, and terms of reference. A recent highlight is the Women in Astronomy Workshop held in Sydney on 13 May. Much useful discussion, led by senior figures (women and men) in astronomy and industry, was held on issues related to leadership and career options. The workshop concluded with a number of recommendations for individuals and institutions. A paper summarising outcomes and recommendations is available at arXiv:1106.6094. Just after the AGM, a special session "Speed Meet a Mentor" will be held. This recognises the importance of mentoring in career development.

12. ANITA

This chapter has also been growing, with membership now at 83. A number of upcoming meetings have been organised, including "HPC GPU Computing Workshop and Introduction to MASSIVE" to be held at Monash University 13-14th July 2011, and "Nuclei in the Cosmos XII" and "Nuclei in the Cosmos Winter School" in Cairns 5-10th August 2012. Two newsletters have been produced this year. ANITA Chair Darren Croton as well as past Steering Committee member Stuart Wyithe represented ANITA on the Mid-term Review of the Astronomy Decadal Plan.

13. Education and Public Outreach Chapter (EPOC)

To complete my report of the ASA's trio of chapters, I'm very pleased to report that this chapter has also been very active this year. A new operating structure, including a revised charter, has been prepared and members will soon be able to see a new web site. More will be reported shortly.

14. ASA Priorities

At the last AGM, a set of Council initiatives was presented. The following have been satisfactorily completed:

- Define a 'Code of Ethics' for ASA members.
See http://asa.astronomy.org.au/code_of_ethics.html.
- Develop the Women in Astronomy Chapter.
See section 11 and WiA web site (link from ASA pages).
- Review the level of support required for the (all-volunteer) ASA Executive.
Efficiency improvements mean that a part-time bookkeeper will not be engaged for the time being.

The following are still ongoing, and the Council sees value in continuing with these initiatives:

- Document the early history of the ASA.

- *Some interviews have been conducted; more are planned.*
- Publish an FAQ sheet to provide information and advice to students to help them enhance their career prospects.
Some existing information has been updated and information for PhD students is in draft form
- Trial an astronomy events bulletin.
Suitable software identified; yet to be implemented.
- Enhance the Australian Astronomy web site.
Development to continue.

For 2011-12, Council will continue to pursue the above four items which are still ongoing. We have also decided to prioritise four additional initiatives:

- Remind members of the option and benefits of making tax-deductible donations to the Society.
- Consider ways to improve career development opportunities for early-career researchers.
- Increase the frequency of Council meetings by adding two telecons each year in an effort to smooth the Council workload.
- Prepare a proposal for the ASA to gather and maintain demographic data for the astronomy community.

We welcome comment from the membership and suggestions for other initiatives.

15. **ASA Council for 2011-2012**

I would like to thank all members of Council for their efforts and contributions, and to acknowledge Helmut Jerjen, Kevin Pimblet and Donna Burton (student representative) whose terms came to an end at the close of the AGM. I would particularly like to thank Prof Warrick Couch whose term has also come to an end. Warrick, as an ex-President, has served on the Council for six continuous years!

The Council for 2011/12 will be:

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|-----------------------|-------------------------------|
| Kate Brooks | President |
| Andrew Hopkins | Vice-President |
| Lister Staveley-Smith | Immediate Past President |
| John O'Byrne | Secretary |
| Marc Duldig | Secretary |
| Katrina Tapia-Sealey | Treasurer |
| Darren Croton | Councillor |
| Amanda Karakas | Councillor |
| John Lattanzio | Councillor |
| Gavin Rowell | Councillor |
| Andrew Walsh | Councillor |
| Andy Casey | Student Representative |
| Bryan Gaensler | Chair, PASA Editorial Board |
| Tanya Hill | Prizes and Awards Coordinator |

Welcome to the incoming councillors: Darren Croton, Amanda Karakas and Gavin Rowell, and the incoming student representative, Andy Casey.

16. **Next Year's ASM/AGM**

I am please to announce that the location of next year's Annual Scientific Meeting will be the University of New South Wales in Sydney from 2-6 July 2012. The HWWS will be held in a nearby location.

My final duty is to thank the LOC and the SOC for their organisation of this meeting. In particular, LOC members: Cheryl Au, Jose Bellido, Roger Clay, Bruce Dawson, Phoebe deWilt, Brent Nicholas, Gavin Rowell (Chair), and Greg Thornton. This year's meeting has a new, extended, format which permits more time for talks and discussion, but also places an extra load on the LOC for which the Society is very grateful.

The Harley Wood Winter School, which had the theme "Critical Problems in Astrophysics", was held at the Woodfield Adare conference centre, Victor Harbor, and I would like to thank all the people involved in its organisation (LOC: Phoebe Claire de Wilt, Mathew Cooper, Nigel Maxted, Justin Bray, Alexander Herve Cheryl Au; SOC: Craig Burnett (Uni. Melb), Phoebe deWilt (chair - Uni. Adelaide), Alexander Herve (Uni. Adelaide), Christopher Jordan (JCU), Billy

Robbins (USyd), Tammy Roderick (ANU), Morag Scrimgeour (UWA) and Minnie Mao (UTas, CASS)) as well as those who gave freely of their time to present lectures at the school.

Lister Staveley-Smith, July 5, 2011 (updated following the AGM)