



# ASTRONOMICAL SOCIETY OF AUSTRALIA

*Incorporated in the ACT  
ABN 37 660 297 848*

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## **President's Report UNSW Wednesday 4 July 2012**

### **1. Highlights**

#### *Square Kilometre Array (SKA) Site Decision*

The community learned on the 25 May 2012 that the Square Kilometre Array (SKA) project will be jointly hosted by the Australia/New Zealand consortium and Southern Africa. This is an excellent result for the project and for the Australian astronomy community. Australia is now well and truly on the path to SKA and we have delivered on the top recommendation in our Mid-Term Review of the Decadal Plan for Australian Astronomy 2006–2015: Australia must ensure that it remains in the best possible position to participate in and host the international SKA.

I would like to take this opportunity to thank again all involved in achieving the outcome, including; Department of Industry, Innovation, Science, Research and Technology (DIISRTE), CSIRO, ICRAR, CAASTRO and our national bodies. I also acknowledge the important role of our NZ colleagues. A special thanks must go to ASA members, Brian Boyle (CSIRO SKA Director) and Michelle Storey (CSIRO's SKA Executive Officer). Michelle was awarded a Public Service Medal in this year's Australia Day Honours list for her exceptional and tireless efforts in CSIRO working on SKA related activities since 1999.

#### *Significant achievement and recognition of ASA members*

Over the past year a number of our members have been recognised for their significant contributions to the field. The most notable being Professor Brian Schmidt who was awarded the 2011 Nobel Prize for Physics along with his US colleagues Saul Perlmutter and Adam Riess for the discovery of the accelerating expansion of the Universe through observations of distant supernovae.

Members who were recognized in 2011/12 for their significant achievement included:

- Professor Brian Schmidt – awarded the 2011 Nobel Prize for Physics, elected to the Royal Society and made an Honorary Fellow of the ASA.
- Dr Michelle Storey – awarded a Public Service Medal in the 2012 Australia Day Honours.
- Professor Stuart Wyithe – awarded the 2011 Malcolm McIntosh Prize for Physical Scientist of the Year.
- Professor Joss Bland-Hawthorn – elected a Fellow of the Australian Academy of Science.
- Professor John Norris – elected a Fellow of the Australian Academy of Science.

- Professor Karl Glazebrook – received a 2012 Australian Citation Laureate Award from Thomson Reuters.
- Dr John O’Sullivan – received a European Inventor Award 2012.
- Astronomy students Jacinta Delhaize, Minnie Mao, Melissa Ness and Andy Casey – selected for the 2012 Lindau Nobel Laureate Meeting.

This long list of accolades is a testament not only to the high calibre of researchers in our society but also to the high profile and regard that Australian astronomy enjoys from the public. I congratulate the above members for these achievements.

#### *ASA Early Career Mentoring Workshop 2012*

The first ASA Early Career Researcher Mentoring Workshop was held in the beautiful Shoal Bay by the entrance to Port Stephens, NSW over 31 May and 1 June 2012. The purpose of the workshop was to address topics related to career progression for the future leaders in our astronomy community. A total of 50 early-career astronomers and 12 invited astronomy leaders participated. A summary of the workshop will be available online in the coming weeks.

I would like to thank the Workshop organisers, Darren Croton, Marie Martig, Chiara Tonini and David Parkinson. The workshop was rated very highly by both the participants and the speakers. The ASA hopes to run a second ECR workshop in 2014.

#### *ANITA Theory Workshop and ASA/ANITA Numerical Astrophysics Summer School 2012*

The 2012 ANITA Workshop was held on 13-14 February 2012 followed by the ASA/ANITA Numerical Astrophysics Summer School on 15-17 February 2012, both at the Monash Centre for Astrophysics (MoCA). The ANITA Workshop was attended by 73 students and, as with previous workshops, provided a review of Theoretical Astrophysics in Australia and a platform for current research and collaboration. The ASA/ANITA Summer School was attended by 51 students and covered specific topics related to Numerical Astrophysics with a mix of lectures and hands-on lab sessions.

This year’s ANITA Book Prize (\$100 gift voucher) was awarded to Terrence Tricco (MoCA) for an outstanding talk on "Hyperbolic Divergence Cleaning for Smoothed Particle Magnetohydrodynamics". Congratulations Terrence.

I would like to thank Daniel Price, Terrence Tricco and John Lattanzio from MoCA for organising this event.

#### *ASA Harley Wood Winter School 2012*

The 2012 Harley Wood Winter School was held over the 28 June and 1 July in the Blue Mountains. This year’s theme was “Tools of the Trade” and was attended by 60 astronomy students. I would like to thank Shane Hengst and Vicki Lowe and their team of organisers. Thank you also to the 10 invited speakers for their contribution.

#### *Social Media*

During this past year the ASA has increased its use of social media through the following:

- In February 2012 the ASA joined Facebook. The group now has 140 members and is proving to be a popular avenue for highlighting recent articles, awards and upcoming events. <https://www.facebook.com/groups/366040943421273>
- Late in 2011 the ASA Events Calendar was created for listing ASA-sponsored events such as the Annual Scientific Meeting and the Harley Wood School. Also listed are conferences, workshops and meetings in Australia (and occasionally overseas) that are open to broad Australian and international participation. <http://asa.astronomy.org.au/calendar.html>
- This year's (2012) ASA Annual Science Meeting and Harley Wood Winter School had their own Facebook groups and Twitter hashtags.
- The ASA email exploder has now moved to MailMan. This will permit all ASA members to directly post to the email group (use [asa@physics.usyd.edu.au](mailto:asa@physics.usyd.edu.au)) with release pending authorisation from one of two nominated Council members. This change should increase the flexibility of the email exploder and permit the original sender's name to appear in the email heading.

### *Presentation of the new Berenice and Arthur Page Medal*

The Berenice Page Medal for amateur astronomy is presented biennially at the National Convention of Amateur Astronomers (NACAA). Following the death of Arthur Page (Berenice's husband) in 2011, and with support from the Page family, the ASA renamed this prize the Berenice and Arthur Page Medal.

A new medal was cast for the prize and it was awarded for the first time at the 2012 NACAA. The Convention was hosted by the Astronomical Association of Queensland (AAQ), which Arthur had helped to establish and before he died, Arthur had expressed a wish to present the Medal at this NACAA. Therefore, it was especially fitting that members of the Page family were able to attend the presentation. Marc Duldig attended the presentation and presented the Page family with copies of the original Berenice Page Medal and the new Berenice and Arthur Page Medal along with certificates of appreciation. In all, it was a very moving and appropriate tribute to Arthur that recognised his life-long contribution to Australian astronomy.

The ASA has since received a donation from the AAQ to contribute towards the Berenice Medal, in honour of Arthur Page. The ASA is very grateful for the AAQ's support.

## **2. ASA Membership**

Our membership continues to grow. As of 30 June 2012 the current membership is 604 with more than 200 student members. At the start of 2012 the Council campaigned to upgrade those Members who qualified for Fellow status. This effort resulted in 27 new Fellows.

Our Corporate Members (AAL, AAO, ATNF, Research School of Astronomy and Astrophysics, ANU, Centre for Astrophysics and Supercomputing, Swinburne University of Technology and the University of Sydney Physics Foundation) continue to support the Society. The Council is in the process of revising the benefits to Corporate Members, to better acknowledge their ongoing support of our Society.

It is also with much pleasure to announce Council's appointment of Professor Brian Schmidt as an Honorary Fellow of the Society. I note that Brian has also been appointed

Honorary Fellow of the Institute of Physics. The ASA are proud to have Nobel Laureate as one of our members.

### **3. Donations**

I wish to acknowledge all of those groups and individuals who have made donations to our Society during this past year.

I also take this opportunity to remind members of the Foundation for the Advancement of Astronomy (FAA). The FAA has received an anonymous \$10000 donation as well as a further \$2000 from members. The FAA is a tax-deductible Foundation that exists to enhance the ASA's efforts to promote Astronomy and related fields in Australia, and to recognise and support excellence in those fields. The purposes of the FAA are broadly defined to allow the support of prizes, scholarships, research and facilities. The FAA now funds all ASA Prizes. In addition, support from the Richard Cole Fund is now available to support ASA activities for students, in particular the ASA/ANITA Summer School in Theoretical Astrophysics and the Astroinformatics School. The ASA welcomes suggestions for other initiatives.

### **4. Publication of the ASA (PASA)**

The Publications of the ASA (PASA) continues to thrive under the leadership of Bryan Gaensler and his editorial colleagues: Stuart Ryder, Duncan Forbes, Jeremy Mould, Daniel Price, Michael Burton and Benedetta Ciardi.

An International Advisory Panel (IAP) has been formed to act as an advisory and advocacy body. The current foundation IAP members are: Harvey Butcher (Australia), Victoria Kaspi (Canada), Avi Loeb (USA), Karl Menten (Germany) and Ravi Subrahmanyan (India), Mary Putman (USA), Almudena Alonso-Herrero (Spain), Erwin de Blok (Netherlands), John Lattanzio (Australia). A further six more members will be appointed in 2012/13.

As anticipated, PASA's 2012 ISI two-year impact factor (IF), corresponding to citations in 2011 from papers published in 2009 & 2010, has returned to historical levels: impact factors for the last four years were 2.56 for 2009, 3.79 for 2010, 1.59 in 2011 and 2.26 in 2012. PASA now ranks 21 out of the 56 astronomy journals whose IFs are tracked by ISI.

Named after Australia's first official astronomer in the colony, William Dawes, The Dawes Review will consist of substantial reviews on topics of high interest and will be written by astronomers of international standing at the invitation of the Editorial Board. The Dawes Review #1 is being written by Prof Karl Glazebrook, on the topic "Kinematic studies of galaxy assembly across cosmic time" and will be ready for publication later in 2012. Two further Dawes Reviews have been commissioned for publication in 2013/2014, by authors Dr Amanda Karakas (ANU) and Assoc Prof Jeremy Bailey (UNSW).

PASA's current publishing contract with CSIRO Publishing ends on 31 Dec 2012. The Council and the PASA editorial board are very excited to announce that a new 5-year publishing contract has just been signed with Cambridge University Press (CUP) who are represented at the meeting this week.

## 5. Loss of prominent Society members

It is with sadness that I note the passing of former ASA member Dr Kevin Sheridan AM. Kevin was a foundation member of the Society and a Secretary for the first two years, back in 1966-67. Kevin passed away in August 2010 but we only became aware of this late last year. The ASA received a donation from his estate.

Kevin joined CSIRO in 1945 and worked with Bernie Mills and Alec Little on the Mills Cross radio telescope. He went on to work on the Culgoora Radioheliograph and was Solar Group leader from 1975 until he retired in 1984. Kevin was made a Member of the Order of Australia in 1984 “for service to Science particularly in the field of Radiophysics”.

## 6. ASA Prizes and Awards

The ASA is pleased to announce the recipients of the 2012 ASA Awards and Prizes:

### *Harley Wood Lecturer*

The ASA sponsors the annual Harley Wood Public Lecture, which was inaugurated in honour of the first President of the ASA, who was also the 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 exciting speakers who will carry on the legacy established by Harley Wood. The Harley Wood Lecturer for 2012 is Professor Chris Tinney, Professorial Research Fellow at UNSW, who will talk on “A wealth of new planets.”

### *Bok Prize for outstanding research in astronomy by an Honours or eligible Masters student at an Australian university*

The Bok Prize is awarded to Alison Hammond for her thesis “Cosmic Magnetism: Faraday Rotation as a Probe of Extragalactic Magnetic Fields.” Alison completed her Honours research at the University of Sydney under the supervision of Bryan Gaensler & Tim Robishaw. She produced an outstanding thesis, which displayed an excellent combination of understanding, impact, effort involved and presentation. I note that this year is the first time we have accepted Masters reports for the Bok Prize.

### *Charlene Heisler Prize for the best PhD thesis accepted by an Australian university*

The Charlene Heisler Prize is awarded to Dr Anthony van Eysden, for his thesis “Superfluid spin up and pulsar glitch recovery” completed at the University of Melbourne under the supervision of Andrew Melatos. Anthony produced an outstanding piece of work, which attacked the research problem thoroughly and from many different angles. It resulted in four excellent publications, spread across different discipline journals.

In addition, Dr Simon Murphy receives an honorable mention for his thesis “Revealing the Chamaeleon: Young, low mass stars surrounding nu and eta Chamaeleontis” completed at ANU under the supervision of Mike Bessell. Simon made multiple contributions to a multi-faceted study and produced a brilliantly written thesis.

### *Louise Webster Prize for outstanding research by a scientist early in their post-doctoral career*

The Louise Webster Prize is awarded to Dr Sean Farrell (University of Sydney), for his nominated paper “An Intermediate-mass black hole of over 500 solar masses in the galaxy ESO 243-49” (Nature, 2009, 460, 73). Sean's discovery has and will continue to have wide and long-lasting impact.

*Berenice and Arthur Page Medal for excellence in amateur astronomy*

The Berenice and Arthur Page Medal is awarded to Mr Anthony Wesley for his high quality observations of the Jovian and Saturnian atmospheres and the discovery of an impact cloud and of an atmospheric flash on Jupiter from superbolide collisions. Anthony is an exceptional amateur astronomer and his contributions led him to be named co-author on three ApJ Letter publications as well as a Nature paper. It is clear that his work has contributed to the advancement of astronomy.

*The David Allen Prize for exceptional achievement in astronomy communication.*

The 2012 David Allen Prize is awarded to Dr Charley Lineweaver for his excellent communication style that delivers high-level knowledge but with broad public appeal, and his impressive wide range of media and speaking engagements. Charley is a member of the Planetary Science Institute at the Research School of Astronomy and Astrophysics at Mt Stromlo Observatory. He clearly shows strong commitment and passion towards astronomy communication and does a wonderful job towards educating and inspiring his audiences no matter what the venue or the topic.

Congratulations to all our 2012 prize winners and a big thank you to all of our 2012 judges for devoting a considerable amount of their time to assessing all of the entries.

## **7. Women in Astronomy Chapter (WiA)**

During the 2011 ASA Annual Science Meeting the WiA Chapter organised a “Speed-Meet-A-Mentor” session, which was attended by over 70 people. The idea for the session came from the Chapter’s Women in Astronomy Workshop held in May 2011, where it was made clear that mentoring is important during one’s career. The feedback from the session was positive and hence the Chapter has organised a second session to be held during the 2012 ASA Annual Science Meeting.

One of the tasks of the Women in Astronomy Chapter is to collate statistics on women in Australian astronomy as a means of monitoring the progress of the status of women in astronomy over time. Statistics are now available for the following: ASA membership, ASA Council membership, ASA award recipients and the ASA Annual Science Meetings. <http://asawomeninastronomy.org/statistics/>

Chapter Steering Committee elections took place at the end of June 2012. The members retiring are the Chair, Sarah Maddison, full members Matthew Colless, Steven Tingay and Baerbel Koribalski, and the student representative Minnie Mao. I would like to thank Sarah for her outstanding work as Chair, and the members for their work as the inaugural steering committee for the Chapter.

The 2012/13 WiA Steering Committee consists of:

Lisa Harvey Smith (Chair, CSIRO), Sarah Brough (AAO), Bryan Gaensler (CAASTRO), Tanya Hill (Museum of Victoria), Andrew Hopkins (AAO, ASA Council), Louise Howes (Student member, ANU), Virginia Kilborn (Swinburne), Stuart Ryder (AAO), and Raquel Salmeron (Secretary, ANU).

I look forward to attending the second Women in Astronomy workshop, which will be held in Melbourne on 10 October 2012.

## **8. Education and Public Outreach Chapter (EPOC)**

After a developing a new operating structure, including a revised charter and a new Steering Committee in 2011, EPOC has established a new website (<http://asaepoc.wordpress.com/>) and email address ([asaepoc@gmail.com](mailto:asaepoc@gmail.com)).

EPOC produces the popular ASA Factsheets series. These information sheets cover a number of topics of interest to the general public, such solar and lunar eclipses, comets and general astronomy information with an Australian flavour. The three most recent fact sheets have proved to be very popular with the public:

- No. 24: Transit of Venus 6 June 2012
- No. 23: Solar eclipse, 14 November 2012
- No. 22: Laser Pointers

The EPOC Steering Committee consists of:

Christopher Fluke (Swinburne; Chair), Michael Burton (UNSW), Jacinta Delhaize (ICRAR; Student Representative), Rob Hollow (CSIRO), Andrew Jacob (Sydney Observatory; Treasurer), Jonathon Kocz (Swinburne), Jonathon Nally (Secretary), John O'Byrne (University of Sydney; ASA Council Member), and Helen Sim (CSIRO/AAO).

Council has approved the six-month extension of the initial Committee terms so that the next election will be held in March-April 2013. This will allow the new committee to establish itself fully.

## **9. Australian National Institute for Theoretical Astrophysics (ANITA)**

The ANITA chapter has been busy over this past year. It currently has ~100 members, with a ~75/25 percent male/female split. The chapter had their Steering Committee elections in March 2012. The Chair and Student Representative were re-elected unopposed (Darren Croton and Simon Mutch, respectively) and all current members were re-elected.

The current ANITA Steering committee consists of:

Darren Croton (Chair, Swinburne), Tamara Davis (Queensland), Alan Duffy (UWA/ICRAR), Jarrod Hurley (Swinburne), John Lattanzio (Immediate Past Chair, Monash), Greg Poole (Swinburne), Daniel Price (Monash), David Parkinson (UQ), Simon Mutch (Swinburne).

The chapter published a quarterly newsletter and has just completed ANITA's Strategic Plan for Theoretical Astrophysics 2012-2015, as tasked by the mid-term review of the current Decadal Plan. As highlighted already in this report, the 2012 ANITA Workshop was held on 13-14 February 2012, followed by the ASA/ANITA Numerical Astrophysics Summer School on 15-17 February 2012, both at Monash University in Melbourne.

From now on ANITA will take carriage of the highly successful AstroInformatics Workshop. The plan is to run the workshop every two years, alternating with the Numerical Astrophysics Summer School. The next AstroInformatics workshop is expected to run early in 2013.

## **10. Progress against 2011-2012 priorities**

In addition to the ongoing work of the ASA, the Council had defined a series of priorities for 2011-2012. These were suggested by the outgoing Council and presented to the 2011 AGM. (<http://asa.astronomy.org.au/priorities.html>).

- Document the early history of the ASA.  
*Interviews completed and a publication expected to result.*
- Publish an FAQ sheet to provide information and advice to students to help them enhance their career prospects.  
*Completed. <http://asa.astronomy.org.au/students.html>*
- Trial an astronomy events bulletin.  
*This became the ASA calendar. <http://asa.astronomy.org.au/calendar.html>*
- Enhance the Australian Astronomy web site.  
*Work in progress as the site is moving in response to the move of PASA to CUP, since CSIRO Publishing had been hosting the site.*
- Remind members of the option and benefits of making tax-deductible donations to the Society.  
*Done at start of each year when fees are due.*
- Consider ways to improve career development opportunities for early-career researchers.  
*Done via the initiation of the very successful ECR workshop.*
- Increase the frequency of Council meetings by adding two telecons each year in an effort to smooth the Council workload.  
*Initiated successfully, and working well.*
- Prepare a proposal for the ASA to gather and maintain demographic data for the astronomy community.  
*The Women in Astronomy chapter together with the National Committee of Astronomy now has carriage of this, in preparation for the 2015-2025 Decadal Plan.*

This is a very satisfying list of achievements for the year. Priorities for 2012-13 will be discussed during the ASA Annual General Meeting and updated afterwards on the ASA website.

### **11. ASA Council for 2012-2013**

I would like to thank all members of Council for their efforts and contributions, and to acknowledge in particular John Lattanzio whose term comes to an end at this AGM. John has been a member of Council since 2002 and was Chair of the PASA Editorial Board between 2002 and 2008.

Council made a nomination for the opening position on Council and then solicited the membership for further nominations. After receiving 4 extra nominations, a ballot was called. The student representative was re-elected unopposed.



I am pleased to announce that Council for the following 12 months will be:

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

Thank you to all those who nominated and I welcome our new Council member, Cath Trott (ICRAR, Curtin).

## **12. Harley Wood and ASM/AGM 2013**

At a telecom meeting held on 24 April 2012, Council decided to accept the proposal from Monash University submitted by Duncan Galloway to host the 2013 Harley Wood Winter School, Annual Scientific Meeting and Annual General Meeting.

In recent years Monash's astrophysics research has experienced a remarkable resurgence. The Monash Centre for Astrophysics (MoCA) was created in 2011 from the former Centre for Stellar and Planetary Astrophysics and from new personnel in the School of Physics. Astrophysics at Monash has within the last five years expanded dramatically, building on a focus on stellar and planetary astrophysics to a presently much broader scope including galactic evolution, astroparticle physics, high-energy astrophysics, and gravitational wave physics. MoCA now hosts 13 faculty, 11 postdocs, and 21 graduate students. Monash has not hosted the ASA's annual meeting since 1991. For these reasons, 2013 is a timely year to do so.

The 2013 Science Meeting (7 - 12 July 2013) will take place at the Monash University's Clayton Campus, located approximately 20km southeast of Melbourne's central business district. The 2013 Harley Wood Winter School (4 - 7 July 2013) will be held on the beautiful Wilson's Promontory, approximately 3 hours drive southeast of Clayton Campus.

The Council wishes to thank all those involved in submitting proposals. Our annual science meeting and Harley Wood winter schools are the two major events on our calendar and they wouldn't be possible without your support.

The new deadline to submit proposals for the 2014 ASM/AGM and HWWS will be 31 January 2013.

It is now left for me to thank the organisers of our very successful 2012 Annual Science Meeting, and the many auxiliary events and meetings that have been attached to the week. A big thankyou to Maria Cunningham and her team on the Scientific Organising Committee, and Lucyna Chudczer and her team on the Local Organising Committee. A special thank you also to Jonathan Horner (UNSW) for helping with the ASA Prizes and Awards.

Kate Brooks  
July 4, 2012