ASA Annual Scientific Meeting 2018 – Program

Sun, 24 Jun

Sun, 24 Jun, 1:00 p.m. to 3:00 p.m.

ASA Council meeting
1:00 p.m. - 3:00 p.m.

AR 209 (staff room)

Sun, 24 Jun, 6:00 p.m. to 10:00 p.m.

Welcome reception
6:00 p.m. – 10:00 p.m.

Registration required
6:00 p.m. - 10:00 p.m.

Welcome reception will be held on 24 June at the Hawthorn Arts Centre, just across the road from Swinburne University. Hawthorn Arts Centre is a former civic building with a recently redeveloped community hall, with an intriguing mix of traditional and contemporary design. If you would like to bring guests to this event, please ...

More info —

Mon, 25 Jun

Mon, 25 Jun, 8:30 a.m. to 9:00 a.m.

Arrival tea/coffee
8:30 a.m. - 9:00 a.m.

Location: ATC 101 foyer

Mon, 25 Jun, 9:00 a.m. to 9:15 a.m.

Opening Ceremony and address
9:00 a.m. - 9:15 a.m.

Location: ATC 101

09:00 - 09:05: Welcome to ASA 2018 - Prof. Karl Glazebrook, Director Centre for Astrophysics and Supercomputing
09:05 - 09:10: Welcome to Country - Wurundjeri Land & Compensation Cultural Heritage Council Aboriginal Corporation
09:10 - 09:15: Opening address - Vice-Chancellor Prof. Linda Kristjanson
Mon, 25 Jun, 9:15 a.m. to 10:30 a.m.

**General session: Galactic astronomy**  
9:15 a.m. - 10:30 a.m.

**Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology**

<table>
<thead>
<tr>
<th>Time</th>
<th>Talk</th>
<th>Speaker</th>
<th>Affiliation</th>
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</thead>
<tbody>
<tr>
<td>9:15-9:30 a.m.</td>
<td>Astronomical Evidence for Panspermia</td>
<td>John LATTANZIO, Faculty, Monash University</td>
<td></td>
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<tr>
<td>9:30-9:45 a.m.</td>
<td>The Stingray planetary nebula; radio monitoring of a rapidly evolving star</td>
<td>Lisa HARVEY-SMITH, Faculty, Commonwealth Scientific and Industrial Research Organisation</td>
<td></td>
</tr>
<tr>
<td>9:45-10:00 a.m.</td>
<td>Gas Temperature Demography and the Relationship to CO at Low Metallicity in the Magellanic Clouds</td>
<td>Katie JAMESON, Postdoctoral Fellow, Australian National University</td>
<td></td>
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<tr>
<td>10:00-10:15 a.m.</td>
<td>Magnetised clouds in the Galactic corona: Fuel for future star formation?</td>
<td>Asger Emil GRONNOW, PhD student, University of Sydney</td>
<td></td>
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<tr>
<td>10:15-10:30 a.m.</td>
<td>Uniform magnetic fields in HII regions revealed by GMIMS</td>
<td>Alec THOMSON, PhD student, Australian National University</td>
<td></td>
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</tbody>
</table>

Mon, 25 Jun, 10:30 a.m. to 11:00 a.m.

**Morning Tea**  
10:30 a.m. - 11:00 a.m.

**Location: ATC 101 foyer**

Mon, 25 Jun, 11:00 a.m. to 11:30 a.m.

**Charlene Heisler Prize Talk**  
11:00 a.m. - 11:30 a.m.

**Location: ATC 101 — Chair: Ryan SHANNON, Swinburne University**

<table>
<thead>
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<th>Time</th>
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<tbody>
<tr>
<td>11:00-11:30 a.m.</td>
<td>3D non-LTE stellar spectroscopy</td>
<td>Anish AMARSI, Postdoctoral Fellow, Max Planck Institute for Astronomy</td>
<td></td>
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</tbody>
</table>

Mon, 25 Jun, 11:30 a.m. to 12:15 p.m.

**General session: High energy astrophysics 1**  
11:30 a.m. - 12:15 p.m.

**Location: ATC 101 — Chair: Ryan SHANNON, Swinburne University**

<table>
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<th>Time</th>
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<tr>
<td>11:30-11:45 a.m.</td>
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</table>
The UTMOST SMIRF Survey
Vivek VENKATRAMAN KRISHNAN, PhD student, Swinburne University of Technology
11:45 a.m.-12:00 p.m.
Modelling Pulsar Glitches: An Overview
Lisa DRUMMOND, PhD student, University of Melbourne
12:00-12:15 p.m.
Studying accretion with transitional millisecond pulsars
Adam Travis DELLER, Faculty, Swinburne University of Technology

Mon, 25 Jun, 12:15 p.m. to 12:30 p.m.

Chapter Chair Sparklers; Poster Sparklers
12:15 p.m. - 12:30 p.m.
Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology

Mon, 25 Jun, 12:30 p.m. to 2:00 p.m.

Lunch
12:30 p.m. - 2:00 p.m.
Location: ATC 101 foyer

ECR Chapter Town Hall Meeting
1:00 p.m. - 2:00 p.m.
Location: ATC 101

Mon, 25 Jun, 2:00 p.m. to 3:30 p.m.

General session: Solar and stellar astrophysics 1
2:00 p.m. - 3:30 p.m.
Location: EN 101 — Chair: Lisa HARVEY-SMITH, Commonwealth Scientific and Industrial Research Organisation

Making including duplicity (of stars) in astrophysics easier.
JJ ELDRIDGE, Faculty, The University of Auckland
2:00-2:15 p.m.

Toward understanding the origin and evolution of magnetic white dwarfs
Adela KAWKA, Research Fellow, Curtin University
2:15-2:30 p.m.

Low frequency GMRT studies of Ultra-Cool Dwarfs
Andrew ZIC, PhD student, The University of Sydney
2:30-2:45 p.m.

Cool, polluted white dwarfs in the SkyMapper Survey
Stephane VENNES, Research Fellow, unaffiliated
2:45-3:00 p.m.

Discovery of M-dwarf Flares from SkyMapper Southern Survey
Seo-Won CHANG, Postdoctoral Fellow, The Australian National University
3:00-3:15 p.m.

Special session: SKA precursor science with ASKAP and MWA 1
2:00 p.m. - 3:30 p.m.
Location: ATC 101 — Chair: Sarah WHITE, Curtin University

The Murchison Widefield Array Epoch of Reionisation Project
Cathryn TROTT, Faculty, International Centre for Radio Astronomy Research - Curtin University
2:00-2:15 p.m.

Enhancing EoR limits through improved analysis and calibration of MWA observations
Nichole BARRY, Postdoctoral Fellow, University of Melbourne
2:15-2:30 p.m.

Towards a New MWA Limit on the Epoch of X-Ray Heating
Bart PINDOR, Research Fellow, University of Melbourne
2:30-2:45 p.m.

Finding pulsars in the SKA-era: an SKA-demonstrator all-sky pulsar survey with the Phase 2 MWA
Ramesh BHAT, Research Fellow, ICRAR, Curtin University
2:45-3:00 p.m.

Investigating the Interstellar Medium towards PSR J2241-5236 with the MWA
Dilpreet KAUR, PhD student, Curtin University
3:00-3:15 p.m.
### Mon, 25 Jun, 3:30 p.m. to 4:00 p.m.

#### Afternoon Tea

**3:30 p.m. - 4:00 p.m.**

**Location:** ATC 101 foyer

### Mon, 25 Jun, 4:00 p.m. to 5:30 p.m.

#### General session: Solar and stellar astrophysics 2

**4:00 p.m. - 5:30 p.m.**

**Location:** EN 101 — **Chair:** JJ ELDRIDGE, The University of Auckland

- **4:00-4:15 p.m.**
  - *Star-set on an accretion disk*
  - Geoffrey Raymond BRYAN, PhD student, Swinburne University of Technology, Centre for Astrophysics and Supercomputing

- **4:15-4:30 p.m.**
  - *Unravelling the accretion and jet creation processes at play in post-AGB binaries*
  - Dylan BOLLEN, PhD student, Macquarie University

- **4:30-4:45 p.m.**
  - *Magnetic activity of M-type pre-main sequence stars, and the search for their exoplanets*
  - Belinda Annette NICHOLSON, PhD student, University of Southern Queensland

- **4:45-5:00 p.m.**
  - *Luminous red novae: population models and future prospects*
  - George HOWITT, PhD student, University of Melbourne

- **5:00-5:15 p.m.**
  - *Modelling single star evolution in Globular Clusters*
  - Poojan AGRAWAL, PhD student, Swinburne University of Technology

- **5:15-5:30 p.m.**
  - *Using solar twins to constrain variation in the fine-structure constant on the Galactic scale*
  - Daniel Andrew BERKE, PhD student, Swinburne University of Technology

#### Special session: SKA precursor science with ASKAP and MWA 2

**4:00 p.m. - 5:30 p.m.**

**Location:** ATC 101 — **Chair:** Shivani BHANDARI, CSIRO/ATNF

- **4:00-4:15 p.m.**
  - *WALLABY early science - Imaging of a nearby spiral galaxy*
  - Dane KLEINER, Postdoctoral Fellow, CSIRO

- **4:15-4:30 p.m.**
  - *Gemini Follow-up of Two Massive HI Clouds Discovered with the Australian Square Kilometer Array Pathfinder*
  - Juan MADRID, Postdoctoral Fellow, CSIRO

- **4:30-4:45 p.m.**
  - *WALLABY Early Science observations of the NGC 7232/3 triplet*
  - Karen LEE-WADDELL, Postdoctoral Fellow, Commonwealth Scientific and Industrial Research Organisation

- **4:45-5:00 p.m.**
  - *ASKAP/WALLABY Early Science Observations of the NGC 7162 Galaxy Group*
  - Tristan REYNOLDS, PhD student, International Centre for Radio Astronomy Research/University of Western Australia

- **5:00-5:15 p.m.**
  - *ASKAP Wide and Deep HI surveys*
  - Jonghwan RHEE, Research Fellow, ICRAR, UWA

- **5:15-5:30 p.m.**
  - *Deep Low Frequency Observations of the GAMA 23 Field*
  - Nick SEYMOUR, Faculty, ICRAR/Curtin

### Mon, 25 Jun, 6:00 p.m. to 7:30 p.m.

#### Evening Event: ECR Chapter Speed Meet-A-Mentor

**6:00 p.m. - 7:30 p.m.**

**Location:** AMDC Level 3 Sky Lounge
Mon, 25 Jun, 7:30 p.m. to 9:30 p.m.

**Evening Event: IDEA Chapter Rainbow Dinner**
7:30 p.m. - 9:30 p.m.

Glenferrie hotel
The Rainbow Dinner is sponsored by People & Culture at Swinburne University.

Tue, 26 Jun

Tue, 26 Jun, 8:30 a.m. to 9:00 a.m.

**Arrival tea/coffee**
8:30 a.m. - 9:00 a.m.

Location: ATC 101 foyer

Tue, 26 Jun, 9:00 a.m. to 10:15 a.m.

**Special session: ADACS special session on a focus on big data and computing 1**
9:00 a.m. - 10:15 a.m.

Location: ATC 101 — Chair: Paul HANCOCK, Curtin University

9:00–9:45 a.m.
ADACS Keynote Talk: Collaborations in the Extreme: The rise of open code development in the scientific community
Kelle CRUZ, Faculty, City University of New York Hunter College

9:45–10:00 a.m.
Data Central for Survey Teams
Elizabeth MANNERING, Professional staff, Australian Astronomical Observatory

10:00–10:15 a.m.
More Usable Flops per Watt: A Story About a Highly-optimized Correlation Function Code
Manodeep SINHA, Postdoctoral Fellow, Swinburne University of Technology

Tue, 26 Jun, 10:15 a.m. to 10:30 a.m.

**Poster Sparklers**
10:15 a.m. - 10:30 a.m.

Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology

Tue, 26 Jun, 10:30 a.m. to 11:00 a.m.

**Morning Tea**
10:30 a.m. - 11:00 a.m.

Location: ATC 101 foyer
### Tue, 26 Jun, 11:00 a.m. to 11:45 a.m.

**Special session: ADACS special session on a focus on big data and computing**

**Location:** ATC 101  —  Chair: Paul HANCOCK, Curtin University

- **11:00-11:15 a.m.**
  - Using Extreme Digitisation to Combat Data Challenges in CMB Observations
  - Lennart BALKENHOL, Masters student, University of Melbourne

- **11:15-11:30 a.m.**
  - PerSieve: understanding the role for the astronomer in the data-intensive era
  - Sarah HEGARTY, PhD student, Swinburne University of Technology

- **11:30-11:45 a.m.**
  - High-performance pipeline processing for ASKAP
  - Matthew WHITING, Professional staff, CSIRO

### Tue, 26 Jun, 11:45 a.m. to 12:15 p.m.

**Louise Webster Prize Talk**

**Location:** ATC 101  —  Chair: Paul HANCOCK, Curtin University

- **11:45 a.m.-12:15 p.m.**
  - The cosmic evolution of ionised gas kinematics
  - Emily WISNIOSKI, Postdoctoral Fellow, Australian National University

### Tue, 26 Jun, 12:15 p.m. to 12:30 p.m.

**Poster Sparklers**

**Location:** ATC 101  —  Chair: Darren CROTON, Swinburne University of Technology

### Tue, 26 Jun, 12:30 p.m. to 2:00 p.m.

**Lunch**

**IDEA Chapter Town Hall Meeting**

**Location:** ATC 101 foyer  —  Location: ATC 101

**Location:** EN 101  —  Chair: Keith BANNISTER, Australia Telescope National Facility

### Tue, 26 Jun, 2:00 p.m. to 3:30 p.m.

**Special session: Massively multiplexed spectroscopic surveys**

**Location:** ATC 101  —  Chair: Emily WISNIOSKI, Australian National University

- **2:00-2:15 p.m.**

**Special session: SKA precursor science with ASKAP and MWA**

**Location:** EN 101  —  Chair: Keith BANNISTER, Australia Telescope National Facility

- **2:00-2:15 p.m.**
**Square Kilometre Array update**
David LUCHETTI, Other, Mr
2:15–2:30 p.m.
ASKAP commissioning and survey science update
Aidan HOTAN, Research Fellow, CSIRO
2:30–2:45 p.m.
Low-frequency polarimetry on the path to the SKA: the POGS project
Christopher RISELEY, Postdoctoral Fellow, CSIRO Astronomy & Space Science
2:45–3:00 p.m.
The MWA GLEAM 4-Jy Sample
Sarah WHITE, Postdoctoral Fellow, Curtin University
3:00–3:15 p.m.
Evolutionary Map of the Universe Early Science Results
Andrew O'BRIEN, PhD student, CSIRO
3:15–3:30 p.m.
Low-Frequency Carbon Recombination Lines in the Orion Molecular Cloud Complex
Chenoa TREMBLAY, PhD student, ICRAR-Curtin University

**TAIPAN and the Starbug Fibre-Positioning Technology**
Kyler KUEHN, Professional staff, Australian Astronomical Observatory
2:15–2:30 p.m.
Update on the Giant Magellan Telescope project
Sarah BROUGH, Faculty, UNSW
2:30–2:45 p.m.
Future Prospects for the Maunakea Spectroscopic Explorer
Aaron ROBOTHAM, Faculty, International Centre for Radio Astronomy Research / UWA
2:45–3:00 p.m.
The Taipan Peculiar Velocity Survey
Khaled SAID, Postdoctoral Fellow, Research School of Astronomy & Astrophysics, Australian National University.
3:00–3:15 p.m.
The Drivers of Stellar Populations in Early-type Galaxies
Tania BARONE, PhD student, Australian National University
3:15–3:30 p.m.
Impact of group environment on galaxy star formation in GAMA
Stefania BARSANTI, PhD student, Macquarie University

**Tue, 26 Jun, 3:30 p.m. to 4:00 p.m.**

**Afternoon Tea**
3:30 p.m. - 4:00 p.m.
Location: ATC 101 foyer

**Tue, 26 Jun, 4:00 p.m. to 5:30 p.m.**

**Special session: Massively multiplexed spectroscopic surveys 2**
4:00 p.m. - 5:30 p.m.
Location: ATC 101 — Chair: Stefania BARSANTI, Macquarie University
4:00–4:15 p.m.
Opportunities for Australia with the Large Synoptic Survey Telescope
Sarah BROUGH, Faculty, UNSW
4:15–4:30 p.m.
The transformation of satellites galaxies in groups as seen by SAMI
Luca CORTESE, Faculty, International Centre for Radio Astronomy Research - University of Western Australia
4:30–4:45 p.m.
A unified understanding of scaling relations through kinematic decomposition of bulges and disks.
Sree OH, Postdoctoral Fellow, The Australian National University
4:45–5:00 p.m.

**Special session: SKA precursor science with ASKAP and MWA 4**
4:00 p.m. - 5:30 p.m.
Location: EN 101 — Chair: Bradley MEYERS, ICRAR/Curtin University
4:00–4:15 p.m.
The Spectrum of Fast Radio Burst Emission
Jean-Pierre MACQUART, Faculty, Curtin University
4:15–4:30 p.m.
The ASKAP fast radio burst project: status and plans
Keith BANNISTER, Faculty, Australia Telescope National Facility
4:30–4:45 p.m.
The fast radio burst population observed by ASKAP
Ryan SHANNON, Research Fellow, Swinburne University
4:45–5:00 p.m.
CRAFT-GP: The Longest Galactic Plane Survey for Radio Transients
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>5:00–5:15 p.m.</td>
<td>The SAMI Galaxy Survey: Second Public Data Release</td>
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<tr>
<td>Nic SCOTT, Research Fellow, The University of Sydney</td>
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<td>Hao QIU, PhD student, University of Sydney</td>
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<td>5:15–5:30 p.m.</td>
<td>Spatially-resolved galaxy angular momentum</td>
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<td>Sarah SWEET, Postdoctoral Fellow, Swinburne University of Technology</td>
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<tr>
<td>5:00–5:15 p.m.</td>
<td>Chasing the bright end of the z ~ 9-10 galaxy luminosity function with the BoRG</td>
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<td>Stephanie BERNARD, PhD student, University of Melbourne</td>
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<tr>
<td>5:15–5:30 p.m.</td>
<td>Early science results from the ASKAP-FLASH survey</td>
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<td>Elizabeth MAHONY, Research Fellow, CSIRO Astronomy and Space Science</td>
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<tr>
<td>5:15–5:30 p.m.</td>
<td>The Australian SKA pathfinder: Exploring the transient radio Universe.</td>
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<td>Shivani BHANDARI, Postdoctoral Fellow, CSIRO/ATNF</td>
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Tue, 26 Jun, 6:00 p.m. to 10:00 p.m.

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<tbody>
<tr>
<td>6:00 p.m. - 7:30 p.m.</td>
<td>ADACS Astropy And Astro Coding Chat</td>
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<tr>
<td>6:00 p.m. - 10:00 p.m.</td>
<td>Social Outing to MBO</td>
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ADACS is sponsoring this informal meet-up and networking session for astro coders to help us better understand who is involved in this space and how we can support you.

Kelle Cruz, our invited keynote speaker for the data and computing session at the ASA annual meeting, is particularly interested to meet people who extensively use astropy. If you would like to know more about how to get involved with the open source and open development astropy project do come along to chat.

ADACS will be sponsoring pizza and drinks for this event. Please RSVP here, or contact us for more information.

Wed, 27 Jun

Wed, 27 Jun, 8:00 a.m. to 9:00 a.m.

<table>
<thead>
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<tbody>
<tr>
<td>8:00 a.m. - 8:50 a.m.</td>
<td>Heads of Departments Meeting</td>
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<tr>
<td>8:30 a.m. - 9:00 a.m.</td>
<td>Arrival tea/coffee</td>
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</table>

Location: AR 209 (staff room)

Location: ATC 101 foyer

Wed, 27 Jun, 9:00 a.m. to 10:30 a.m.

<table>
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<tbody>
<tr>
<td>9:00-9:30 a.m.</td>
<td>Special session: ESO</td>
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<tr>
<td>Location: ATC 101 — Chair: Karl GLAZEBROOK, Swinburne</td>
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<tr>
<td>9:30-9:45 a.m.</td>
<td>ESO: strategic partnership and full membership</td>
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<td>Matthew COLLESS, Faculty, ANU</td>
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<td>9:45-10:00 a.m.</td>
<td>ESO in 2018</td>
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<td>Rob IVISON, Faculty, ESO</td>
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<td>Time</td>
<td>Event</td>
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<tr>
<td>10:00-10:15 a.m.</td>
<td><strong>Paranal and La Silla Update and Opportunities</strong>&lt;br&gt;<strong>Michael IRELAND</strong>, Faculty, Australian National University</td>
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<td>10:00-10:15 a.m.</td>
<td><strong>Update from your ESO Users Committee Representative</strong>&lt;br&gt;<strong>Caroline FOSTER</strong>, Research Fellow, The University of Sydney</td>
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<td>10:15-10:30 a.m.</td>
<td><strong>MAVIS: An Australian-led MCAO-Assisted Visible Imager and Spectrograph for the Very Large Telescope</strong>&lt;br&gt;<strong>Richard MCDERMID</strong>, Faculty, Macquarie University</td>
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<tr>
<td>10:30 a.m. - 11:00 a.m.</td>
<td><strong>Morning Tea</strong>&lt;br&gt;Location: ATC 101 foyer</td>
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<tr>
<td>11:00 a.m. - 12:30 p.m.</td>
<td><strong>ASA Annual General Meeting</strong>&lt;br&gt;Location: ATC 101</td>
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<tr>
<td>12:30 p.m. - 2:00 p.m.</td>
<td><strong>Lunch</strong>&lt;br&gt;<strong>ANITA Chapter Town Hall Meeting</strong>&lt;br&gt;<strong>Australia and eROSITA Meeting: strengthening the partnership</strong>&lt;br&gt;Location: ATC 101 foyer&lt;br&gt;Location: ATC 101&lt;br&gt;Location: EN 101</td>
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<tr>
<td>2:00 p.m. - 3:30 p.m.</td>
<td><strong>General session: Extragalactic astronomy 1</strong>&lt;br&gt;<strong>General session: Planetary astrophysics</strong>&lt;br&gt;<strong>National Committee for Astronomy (NCA)</strong>&lt;br&gt;Location: ATC 101 — <strong>Chair: Simon MUTCHE, The University of Melbourne</strong>&lt;br&gt;Location: EN 101 — <strong>Chair: Michael IRELAND, Australian National University</strong>&lt;br&gt;Location: ATC 714&lt;br&gt;Please note that NCA is scheduled from 2:30 p.m to 5:30 p.m.</td>
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<tr>
<td>2:00-2:15 p.m.</td>
<td><strong>The mass dependence of Dark Matter Halo shapes and implications for cusps, cores and ultra diffuse galaxies</strong>&lt;br&gt;<strong>Chris BROOK</strong>, Research Fellow, Universidad de La Laguna/Instituto de Astrofisica de Canarias</td>
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<tr>
<td>2:15-2:30 p.m.</td>
<td><strong>Resolving z ~2 galaxy using adaptive coadded source plane reconstruction</strong>&lt;br&gt;<strong>Soniya SHARMA</strong>, PhD student, Australian National University</td>
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<td>2:30-2:45 p.m.</td>
<td><strong>Thin disk and spiral arm formation at high redshift</strong></td>
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<tr>
<td>2:00-2:15 p.m.</td>
<td><strong>Disks down under: dust traps in transition disks</strong>&lt;br&gt;<strong>Sarah MADDISON</strong>, Faculty, Swinburne University of Technology</td>
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<tr>
<td>2:15-2:30 p.m.</td>
<td><strong>Early evolution of protostellar discs</strong>&lt;br&gt;<strong>Eloise BIRCHALL</strong>, PhD student, Australian National University</td>
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<td>2:30-2:45 p.m.</td>
<td><strong>Binary star formation, evolution of their discs and implications on planet formation</strong>&lt;br&gt;<strong>Rajika KURUWITA</strong>, PhD student, Australian National University</td>
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<td>Time</td>
<td>Speaker</td>
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<td>2:45–3:00 p.m.</td>
<td>Tiantian YUAN</td>
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<td>3:00–3:15 p.m.</td>
<td>Adam BATTEN, PhD student</td>
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<tr>
<td>3:15–3:30 p.m.</td>
<td>Jon Trevor MENDEL, Postdoctoral Fellow</td>
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<tr>
<td>3:30–3:45 p.m.</td>
<td>Jinglin ZHAO, PhD student</td>
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<tr>
<td>3:45–4:00 p.m.</td>
<td>Alexander WALLACE, PhD student</td>
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<tr>
<td>4:00–4:15 p.m.</td>
<td>Robin COOK, PhD student</td>
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<tr>
<td>4:15–4:30 p.m.</td>
<td>Jacob SEILER, PhD student</td>
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<tr>
<td>4:30–4:45 p.m.</td>
<td>Vaishali PARKASH, PhD student</td>
</tr>
<tr>
<td>4:45–5:00 p.m.</td>
<td>Igor ANDREONI, PhD student</td>
</tr>
<tr>
<td>5:00–5:15 p.m.</td>
<td>Caitlin ADAMS, PhD student</td>
</tr>
<tr>
<td>5:00–5:15 p.m.</td>
<td>Haiyang WANG, PhD student</td>
</tr>
</tbody>
</table>

**Wed, 27 Jun, 3:30 p.m. to 4:00 p.m.**

**National Committee for Astronomy (NCA) 3:30 p.m. - 4:00 p.m.**

Location: ATC 714

Please note that NCA is scheduled from 2:30 p.m. to 5:30 p.m.

**Wed, 27 Jun, 4:00 p.m. to 5:30 p.m.**

**General session: Extragalactic astronomy 2 4:00 p.m. - 5:30 p.m.**

Location: ATC 101 — Chair: Barbara CATINELLA, ICRAR/UWA

4:00–4:15 p.m.

The Connection Between Structure and Cold Gas Reservoirs in Galaxies.

Robin COOK, PhD student, International Centre for Radio Astronomy Research

4:15–4:30 p.m.

The Indirect Influence of Quasars on Reionization

Jacob SEILER, PhD student, Swinburne University Technology

4:30–4:45 p.m.

Selection and characterization of Lyman Continuum Galaxies

Uroš MESTRÍC, PhD student, CAS

4:45–5:00 p.m.

HI Galaxies with Little Star Formation

Vaishali PARKASH, PhD student, Monash University

**General session: High energy astrophysics 2 + Education/outreach 4:00 p.m. - 5:30 p.m.**

EN 101 — Chair: Rebecca ALLEN, Swinburne

4:10–4:15 p.m.

Neutrino astronomy with IceCube at the South Pole

Gary HILL, Faculty, University of Adelaide

4:15–4:30 p.m.

K2 Background Survey

Ryan RIDDEN-HARPER, PhD student, Australian National University

4:30–4:45 p.m.

New frontiers in optical fast-transient discovery

Igor ANDREONI, PhD student, Swinburne University of Technology

4:45–5:00 p.m.

My five months in industry

Caitlin ADAMS, PhD student, Ms.

5:00–5:15 p.m.

The Parkes Radio Telescope as a tool for STEM engagement

**National Committee for Astronomy (NCA) 4:00 p.m. - 5:30 p.m.**

Location: ATC 714

Please note that NCA is scheduled from 2:30 p.m. to 5:30 p.m.
<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cool and Close Encounters of the HI Kind</strong></td>
<td>Michelle CLUVER, Faculty, Swinburne University of Technology, Centre for Astrophysics and Supercomputing</td>
</tr>
<tr>
<td>Time: 5:15–5:30 p.m.</td>
<td></td>
</tr>
<tr>
<td><strong>The Economics of First Galaxies Growth</strong></td>
<td>Jimi GREEN, Faculty, CSIRO Astronomy and Space Science</td>
</tr>
<tr>
<td>Time: 5:15–5:30 p.m.</td>
<td></td>
</tr>
<tr>
<td><strong>Studying broadband radio spectra in the classroom</strong></td>
<td>Darren HAMLEY, Masters student, Willetton Senior High School/Edith Cowan University</td>
</tr>
<tr>
<td><strong>Evening Event: ATNF Town Hall Meeting</strong></td>
<td>Location: ATC 103</td>
</tr>
<tr>
<td><strong>Harley Wood Public Lecture</strong></td>
<td>Location: ATC 101 foyer</td>
</tr>
<tr>
<td><strong>Arrival tea/coffee</strong></td>
<td>Location: ATC 101 foyer</td>
</tr>
<tr>
<td><strong>Special session: The future of Australian optical astronomy</strong></td>
<td>Location: ATC 101 – Chair: Clare MCLAUGHLIN, Department of Industry, Innovation and Science</td>
</tr>
</tbody>
</table>

**Wed, 27 Jun, 5:45 p.m. to 6:45 p.m.**

**Harley Wood Public Lecture**

**Oxygen: Breathing in Stars**

Professor Lisa Kewley

Life as we know it requires oxygen, carbon, and nitrogen. Yet the universe began with none of these elements. The elements responsible for life were produced in the deep recesses of stars over 13 billion years of cosmic time. How these elements assembled to …

**Thu, 28 Jun**

**Thu, 28 Jun, 8:30 a.m. to 9:00 a.m.**

**Arrival tea/coffee**

**Thu, 28 Jun, 9:00 a.m. to 10:00 a.m.**

**Special session: The future of Australian optical astronomy**

9:00–9:20 a.m.

The Future of Astronomical Support at the Anglo-Australian Telescope

Chris LIDMAN, Professional staff, Australian National University

9:20–9:40 a.m.

A new era for optical astronomical instrumentation in Australia
Thu, 28 Jun, 10:00 a.m. to 10:15 a.m.

**Poster Sparklers**

10:00 a.m. - 10:15 a.m.

*Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology*

Thu, 28 Jun, 10:15 a.m. to 10:30 a.m.

**Conference photo**

10:15 a.m. - 10:30 a.m.

Thu, 28 Jun, 10:30 a.m. to 11:00 a.m.

**Morning Tea**

10:30 a.m. - 11:00 a.m.

*Location: ATC 101 foyer*

Thu, 28 Jun, 11:00 a.m. to 11:30 a.m.

**Anne Green Prize Talk**

11:00 a.m. - 11:30 a.m.

*Location: ATC 101 — Chair: Minh HUYNH, CSIRO / ICRAR*

11:00-11:30 a.m.

*Cold gas and star formation in galaxies*

Barbara CATINELLA, Faculty, ICRAR/UWA

Thu, 28 Jun, 11:30 a.m. to 12:15 p.m.

**General session: Instrumentation and methods**

11:30 a.m. - 12:15 p.m.

*Location: ATC 101 — Chair: Minh HUYNH, CSIRO / ICRAR*

11:30–11:45 a.m.

*Dark Matter direct detection in Australia*

Elisabetta BARBERIO, Professional staff, The University of Melbourne

11:45 a.m. - 12:00 p.m.

*The SkyHopper CubeSat: Big Science with a Tiny Telescope*
Michele TRENTI, Faculty, University of Melbourne
12:00–12:15 p.m.
The UWL on Parkes -- Early results and future science

Jane KACZMAREK, Postdoctoral Fellow, CSIRO Astronomy & Space Science

Thu, 28 Jun, 12:15 p.m. to 12:30 p.m.

**Poster Sparklers**
12:15 p.m. - 12:30 p.m.

*Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology*

Thu, 28 Jun, 12:30 p.m. to 2:00 p.m.

**Lunch**
12:30 p.m. - 2:00 p.m.

**EPOC Chapter Town Hall Meeting**
1:00 p.m. - 2:00 p.m.

*Location: ATC 101 foyer — Location: ATC 101*

Thu, 28 Jun, 2:00 p.m. to 3:30 p.m.

**Special session: GALAH, Gaia and the Galaxy 1**
2:00 p.m. - 3:30 p.m.

*Location: EN 101 — Chair: Simon CAMPBELL, Monash University*

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00-2:15 p.m.</td>
<td><em>The GALAH Survey: Data Release 2 and Latest Science Results</em></td>
<td>Daniel ZUCKER, Faculty, Macquarie University / Australian Astronomical Observatory</td>
</tr>
<tr>
<td>2:15-2:30 p.m.</td>
<td><em>Galactic Archaeology with GALAH and K2.</em></td>
<td>Sanjib SHARMA, Postdoctoral Fellow, The University of Sydney</td>
</tr>
<tr>
<td>2:30-2:45 p.m.</td>
<td><em>Galactic Archaeology with HERMES: open clusters and stellar streams</em></td>
<td>Gayandhi DE SILVA, Research Fellow, AAO/USyd</td>
</tr>
<tr>
<td>2:45-3:00 p.m.</td>
<td><em>The GALAH Survey: Velocity fluctuations in the Milky Way using red clump giants</em></td>
<td>Shourya KHANNA, PhD student, SIFA, University of Sydney</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td><em>Chronostar: Software for the identification of star formation events through the application of machine learning to Gaia DR2</em></td>
<td>Timothy CRUNDALL, Masters student, ANU</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td><em>A Survey of Chromospheric Activity in GALAH Stars</em></td>
<td>Mark BEAVIS, PhD student, University of Southern Queensland</td>
</tr>
</tbody>
</table>

**Special session: Multi-messenger astronomy 1**
2:00 p.m. - 3:30 p.m.

*Location: ATC 101 — Chair: Jade POWELL, Swinburne University of Technology*

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00-2:15 p.m.</td>
<td><em>GOTO in the Advanced Gravitational-Wave Detector Era</em></td>
<td>Kendall ACKLEY, Postdoctoral Fellow, Monash University</td>
</tr>
<tr>
<td>2:15-2:30 p.m.</td>
<td><em>Multimessenger follow-up of continuous gravitational wave candidates</em></td>
<td>Gregory ASTON, Postdoctoral Fellow, Monash Centre for Astrophysics</td>
</tr>
<tr>
<td>2:30-2:45 p.m.</td>
<td><em>A turnover in the radio lightcurve of GW170817</em></td>
<td>Dougal DOBIE, PhD student, University of Sydney</td>
</tr>
<tr>
<td>2:45-3:00 p.m.</td>
<td><em>Searches for pulsations in LMXBs</em></td>
<td>Shanika GALAUDAGE, Undergraduate/honours student, Monash University</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td><em>Unveiling the violent Universe with gravitational wave astronomy</em></td>
<td>Eric HOWELL, Postdoctoral Fellow, University Western Australia</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td><em>LIGO search for gravitational wave counterparts to FRBs</em></td>
<td>David COWARD, Faculty, University of Western Australia</td>
</tr>
</tbody>
</table>
Thu, 28 Jun, 3:30 p.m. to 4:00 p.m.

**Afternoon Tea**

3:30 p.m. - 4:00 p.m.

Location: ATC 101 foyer

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Thu, 28 Jun, 4:00 p.m. to 5:30 p.m.

**General session: Cosmology**

4:00 p.m. - 5:30 p.m.

Location: ATC 101 — Chair: Janie HOORMANN, University of Queensland

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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</table>
| 4:00-4:15 p.m. | Cosmology with the Dark Energy Survey
Tamara DAVIS, Faculty, University of Queensland |
| 4:15-4:30 p.m. | eROSITA: Cosmology and astrophysics with the next generation X-ray all-sky survey
Kirpal NANDRA, Faculty, Max Planck Institute for Extraterrestrial Physics |
| 4:30-4:45 p.m. | Cross-correlation of Cosmic Microwave Background lensing from POLARBEAR experiment with the H-ATLAS of dusty interstellar medium galaxies
Anh PHAM, PhD student, The University of Melbourne |
| 4:45-5:00 p.m. | Polarisation Properties of Extragalactic Radio Sources Observed with SPTpol 500 deg^2 survey
Nikhel GUPTA, Postdoctoral Fellow, School of Physics, University of Melbourne |
| 5:00-5:15 p.m. | First ever cluster lensing detection in CMB polarisation data
Sanjaykumar PATIL, PhD student, University of Melbourne |
| 5:15-5:30 p.m. | Updating Microlensing Constraints on Primordial Black Holes
Josh CALCINO, PhD student, University of Queensland |

**Special session: GALAH, Gaia and the Galaxy 2**

4:00 p.m. - 5:30 p.m.

Location: EN 101 — Chair: Gayandhi DE SILVA, AAO/USyd

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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</thead>
</table>
| 4:00-4:15 p.m. | Substructures and tidal distortions in the Magellanic stellar periphery
Dougal MACKEY, Research Fellow, Australian National University |
| 4:15-4:30 p.m. | Confirmation for a binary origin for blue straggler stars in Magellanic Cloud clusters
Chengyuan LI, Postdoctoral Fellow, Dept of Physics & Astronomy, Macquarie University |
| 4:30-4:45 p.m. | Pushing the envelope on globular clusters
Jeffrey SIMPSON, Postdoctoral Fellow, Australian Astronomical Observatory |
| 4:45-5:00 p.m. | Post-Asymptotic Giant Branch (post-AGB) Stars as Tracers of the Origin of Elements in the Universe
Devika KAMATH, Faculty, Macquarie University |
| 5:00-5:15 p.m. | On the Peculiar Lives of Low-Mass Primordial Stars
Simon CAMPBELL, Research Fellow, Monash University |
| 5:15-5:30 p.m. | Dredge-up Main-Sequence O stars: implications for the Epoch of Reionization and chemical evolution of the Universe
Arpita ROY, Postdoctoral Fellow, ANU |

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Thu, 28 Jun, 7:00 p.m. to 11:00 p.m.

**ASA Conference Dinner**

7:00 p.m. - 11:00 p.m.

Registration required

7:00 p.m. - 11:00 p.m.

The ASA conference dinner will be held on Thursday, the 28th of June, at the Coral Atoll room of **SEA LIFE Melbourne Aquarium**.
The cost of the dinner is included in the registration fee. The event includes canapes, drinks, and a three-course dinner. The venue caters for special dietary ...

More info →

Fri, 29 Jun

Fri, 29 Jun, 8:30 a.m. to 9:00 a.m.

Arrival tea/coffee
8:30 a.m. – 9:00 a.m.

Location: ATC 101 foyer

Fri, 29 Jun, 9:00 a.m. to 10:30 a.m.

General session: Extragalactic astronomy 3
9:00 a.m. - 10:30 a.m.

Location: EN 101 – Chair: Tamara DAVIS, University of Queensland

9:00–9:15 a.m.
Asymmetric radio galaxies as probes of jet-environment interaction
Stas SHABALA, Faculty, University of Tasmania

9:15–9:30 a.m.
Probing the connection between radio galaxy morphology and environment with GLASS
Jonathan ROGERS, PhD student, University of Tasmania

Special session: Multi-messenger astronomy 2
9:00 a.m. - 10:30 a.m.

Location: ATC 101 — Chair: Kendall ACKLEY, Monash University

9:00–9:15 a.m.
Optimising 3G gravitational wave detectors for neutron star science
Francisco HERNANDEZ, PhD student, Monash University

9:15–9:30 a.m.
Using machine learning algorithms to enable gravitational-wave detection of short duration binary neutron star remnants
Paul EASTER, PhD student, Monash University
9:30–9:45 a.m.  
Catching Sub-kpc Scale AGN Feedback in the Act in the Compact Steep Spectrum Source 4C 31.04  
Henry ZOVARO, PhD student, The Australian National University

9:45–10:00 a.m.  
AGN Reverberation Mapping with OzDES  
Janie HOORMANN, Postdoctoral Fellow, University of Queensland

10:00–10:15 a.m.  
Exploring High-z Black Hole - Bulge Relations With Semi-Analytics  
Madeline MARSHALL, PhD student, University of Melbourne

10:15–10:30 a.m.  
The next-generation automated radio source classifier based upon Radio Galaxy Zoo and advanced machine learning algorithms  
O. Ivy WONG, Research Fellow, ICRAR/UWA

Fri, 29 Jun, 10:30 a.m. to 11:00 a.m.

Morning Tea  
10:30 a.m. - 11:00 a.m.  
Location: ATC 101 foyer

Fri, 29 Jun, 11:00 a.m. to 12:30 p.m.

General session: Extragalactic astronomy 4  
11:00 a.m. - 12:30 p.m.  
Location: EN 101 – Chair: Nikki NIELSEN, Swinburne University of Technology

11:00–11:15 a.m.  
Titans of the Early Universe: The origin of the most massive, high-redshift quasars  
Tyrone E. WOODS, Research Fellow, Monash University

11:15–11:30 a.m.  
Infer Structure of Quasar with Machine Learning  
Suk Yee YONG, PhD student, The University of Melbourne

11:30–11:45 a.m.  
Calibrating the James Webb Space Telescope filters as star formation rate indicators  
Madhooshi Ruwanpura SENARATH, PhD student, Monash centre for Astrophysics, School of physics and Astronomy, Monash University

11:45 a.m.-12:00 p.m.  
Star-forming properties of galaxies in the core and filamentary regions of the merging galaxy cluster A2744  
Tiffany E. DAY, PhD student, Macquarie University

12:00–12:15 p.m.  
The globular cluster system of NGC 4526  
Leonie CHEVALIER, Masters student, Swinburne University of Technology

Special session: Multi-messenger astronomy 3  
11:00 a.m. - 12:30 p.m.  
Location: ATC 101 – Chair: Eric HOWELL, University Western Australia

11:00-11:15 a.m.  
Next Generation Gravitational Wave Observatories - The Network  
Bram SLAGMOLEN, Research Fellow, The Australian National University

11:15–11:30 a.m.  
Research topics at the University of Western Australia towards third generation gravitational wave detectors  
Joris VAN HEIJNINGEN, Postdoctoral Fellow, University of Western Australia

11:30–11:45 a.m.  
Parkes Pulsar Timing Array  
Stefan OSLOWSKI, Research Fellow, Swinburne University of Technology

11:45 a.m.–12:00 p.m.  
Improving gravitational wave science with machine learning  
Jade POWELL, Postdoctoral Fellow, Swinburne University of Technology

12:00–12:15 p.m.  
Hidden Markov model tracking of continuous gravitational waves from binary neutron stars  
Patrick CLEARWATER, PhD student, The University of Melbourne

12:15–12:30 p.m.
Fri, 29 Jun, 12:30 p.m. to 1:15 p.m.

**Lunch**
12:30 p.m. - 1:15 p.m.

*Location: ATC 101 foyer*

Fri, 29 Jun, 1:15 p.m. to 1:45 p.m.

**Invited Talk**
1:15 p.m. - 1:45 p.m.

*Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology*

1:15-1:45 p.m.

*Listening to the Universe: Ground Based Gravitational Wave Astronomy and Australia's Future Role*

David BLAIR, Faculty, University of Western Australia

Fri, 29 Jun, 1:45 p.m. to 2:30 p.m.

**Special session: Exoplanets & galactic structure in the TESS era**
1:45 p.m. - 2:30 p.m.

*Location: ATC 101 — Chair: Darren CROTON, Swinburne University of Technology*

1:45–2:00 p.m.

*The FunnelWeb Survey: Spectroscopic Stellar Parameters for All Southern Stars in the Gaia Era*

Adam RAINS, PhD student, Australian National University

2:00–2:15 p.m.

*The photometric selection of M-dwarfs using Gaia, WISE and 2MASS photometry*

John BENTLEY, PhD student, University of New South Wales

2:15–2:30 p.m.

*Flying the nest to the Magellanic Clouds and Bridge with GALAH and TESS-HERMES*

Jeffrey SIMPSON, Postdoctoral Fellow, Australian Astronomical Observatory

Fri, 29 Jun, 2:30 p.m. to 2:45 p.m.

**Student Prize Announcement; Closing Ceremony**
2:30 p.m. - 2:45 p.m.

*Location: ATC 101 — Chair: Karl GLAZEBROOK, Swinburne*
Sponsors

ASA Annual Scientific Meeting 2018 is proudly sponsored by the following organizations and companies:

We acknowledge support from the Hunstead gift for Astrophysics at the Sydney Institute for Astronomy.

We thank the School of Science at Swinburne University for their support.

The Rainbow Dinner is sponsored by People & Culture at Swinburne University.