# ASA Annual Scientific Meeting 2018 – Program

## Sun, 24 Jun

### 6:00 – 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

### 8:30 – 9:00 a.m.

**Arrival tea/coffee**

*8:30 a.m. - 9:00 a.m.*

Location: ATC 101 foyer

### 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.

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

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30-11:00 a.m.</td>
<td><strong>Morning Tea</strong>&lt;br&gt;<strong>Location: ATC 101 foyer</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>11:00-11:30 a.m.</td>
<td><strong>Charlene Heisler Prize Talk</strong>&lt;br&gt;<strong>Location: ATC 101</strong></td>
</tr>
<tr>
<td></td>
<td><strong>3D non-LTE stellar spectroscopy</strong></td>
</tr>
</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*

| 11:30-11:45 a.m. | **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*

### 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*

<table>
<thead>
<tr>
<th>2:00-2:15 p.m.</th>
<th><strong>Making including duplicity (of stars) in astrophysics easier.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00-2:15 p.m.</td>
<td><strong>The Murchison Widefield Array Epoch of Reionisation Project</strong></td>
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</tbody>
</table>

**Special session: SKA precursor science with ASKAP and MWA 1**  
2:00 p.m. - 3:30 p.m.  

*Location: ATC 101*
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:15-2:30 p.m.</td>
<td>JJ ELDRIDGE, Faculty, The University of Auckland</td>
<td>Toward understanding the origin and evolution of magnetic white dwarfs</td>
</tr>
<tr>
<td>2:30-2:45 p.m.</td>
<td>Adela KAWKA, Research Fellow, Curtin University</td>
<td>Low frequency GMRT studies of Ultra-Cool Dwarfs</td>
</tr>
<tr>
<td>2:45-3:00 p.m.</td>
<td>Andrew ZIC, PhD student, The University of Sydney</td>
<td>Cool, polluted white dwarfs in the SkyMapper Survey</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td>Stephane VENNES, Research Fellow, unaffiliated</td>
<td>Discovery of M-dwarf Flares from SkyMapper Southern Survey</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td>Seo-Won CHANG, Postdoctoral Fellow, The Australian National University</td>
<td>Breakdown of a common envelope simulation</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Time</th>
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<th>Title/Details</th>
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</thead>
<tbody>
<tr>
<td>2:15-2:30 p.m.</td>
<td>Cathryn TROTT, Faculty, International Centre for Radio Astronomy Research - Curtin University</td>
<td>Enhancing EoR limits through improved analysis and calibration of MWA observations</td>
</tr>
<tr>
<td>2:30-2:45 p.m.</td>
<td>Nichole BARRY, Postdoctoral Fellow, University of Melbourne</td>
<td>Towards a New MWA Limit on the Epoch of X-Ray Heating</td>
</tr>
<tr>
<td>2:45-3:00 p.m.</td>
<td>Bart PINDOR, Research Fellow, University of Melbourne</td>
<td>Finding pulsars in the SKA-era: an SKA-demonstrator all-sky pulsar survey with the Phase 2 MWA</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td>Ramesh BHAT, Research Fellow, ICRAR, Curtin University</td>
<td>Investigating the Interstellar Medium towards PSR J2241-5236 with the MWA</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td>Dilpreet KAUR, PhD student, Curtin University</td>
<td>Hunting for intermittent pulsars at low frequencies</td>
</tr>
</tbody>
</table>

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*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-4:15 p.m.</td>
<td>Thomas REICHRADT, PhD student, Macquarie University</td>
<td>Star-set on an accretion disk</td>
</tr>
</tbody>
</table>

**Special session: SKA precursor science with ASKAP and MWA 2**
4:00 p.m. - 5:30 p.m.

*Location: ATC 101*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-4:15 p.m.</td>
<td>Bradley MEYERS, PhD student, ICRAR/Curtin University</td>
<td>WALLABY early science - Imaging of a nearby spiral</td>
</tr>
<tr>
<td>Time</td>
<td>Title</td>
<td>Speaker Name</td>
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</tr>
<tr>
<td>4:15–4:30 p.m.</td>
<td>Unravelling the accretion and jet creation processes at play in post-AGB binaries</td>
<td>Geoffrey Raymond BRYAN</td>
</tr>
<tr>
<td>4:30–4:45 p.m.</td>
<td>Magnetic activity of M-type pre-main sequence stars, and the search for their exoplanets</td>
<td>Dylan BOLLEN</td>
</tr>
<tr>
<td>4:45–5:00 p.m.</td>
<td>Luminous red novae: population models and future prospects</td>
<td>Belinda Annette NICHOLSON</td>
</tr>
<tr>
<td>5:00–5:15 p.m.</td>
<td>Modelling single star evolution in Globular Clusters</td>
<td>George HOWITT</td>
</tr>
<tr>
<td>5:15–5:30 p.m.</td>
<td>Using solar twins to constrain variation in the fine-structure constant on the Galactic scale</td>
<td>Poojan AGRAWAL</td>
</tr>
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<td></td>
<td></td>
<td>Daniel Andrew BERKE</td>
</tr>
</tbody>
</table>

**Morning Session**

**Evening Event: ECR Chapter Speed Meet-A-Mentor**
6:00 p.m. - 7:30 p.m.

*Location: AMDC Level 3 Sky Lounge*

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

*The Rainbow Dinner is sponsored by People & Culture at Swinburne University.*
Tue, 26 Jun

8:30 – 9:00 a.m. | 9:00 – 10:15 a.m. | 10:15 – 10:30 a.m. | 10:30 – 11:00 a.m. | 11:00 – 11:45 a.m. | 11:45 a.m. – 12:15 p.m. | 12:15 – 12:30 p.m. | 12:30 – 2:00 p.m. | 2:00 – 3:30 p.m. | 3:30 – 4:00 p.m. | 4:00 – 5:30 p.m. | 6:00 – 9:00 p.m.

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

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

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 2**  
11:00 a.m. - 11:45 a.m.

*Location: ATC 101*

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:15</td>
<td><em>Using Extreme Digitisation to Combat Data Challenges in CMB Observations</em></td>
<td>Lennart BALKENHOL, Masters student</td>
<td>University of Melbourne</td>
</tr>
<tr>
<td>11:15-11:30</td>
<td><em>PerSieve: understanding the role for the astronomer in the data-intensive era</em></td>
<td>Sarah HEGARTY, PhD student</td>
<td>Swinburne University of Technology</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td><em>High-performance pipeline processing for ASKAP</em></td>
<td>Matthew WHITING, Professional staff</td>
<td>CSIRO</td>
</tr>
</tbody>
</table>

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

**Louise Webster Prize Talk**  
11:45 a.m. - 12:15 p.m.

*Location: ATC 101*

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:45 a.m.-12:15</td>
<td><em>Tracing high-z galaxy kinematics from turbulent disks to quenched spheroids</em></td>
<td>Emily WISNIOSKI, Postdoctoral Fellow</td>
<td>Australian National University</td>
</tr>
</tbody>
</table>

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

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

*Location: ATC 101*

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

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

*Location: ATC 101 foyer*

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

*Location: ATC 101*

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

**Special session: Massively multiplexed spectroscopic**  
**Special session: SKA precursor science with ASKAP**
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00-2:15 p.m.</td>
<td><strong>TAIPAN and the Starbug Fibre-Positioning Technology</strong></td>
<td>ATC 101</td>
<td>Kyler KUEHN, Professional staff, Australian Astronomical Observatory</td>
</tr>
<tr>
<td>2:15-2:30 p.m.</td>
<td><strong>Update on the Giant Magellan Telescope project</strong></td>
<td>ATC 101</td>
<td>Sarah BROUGH, Faculty, UNSW</td>
</tr>
<tr>
<td>2:30-2:45 p.m.</td>
<td><strong>Future Prospects for the Maunakea Spectroscopic Explorer</strong></td>
<td>ATC 101</td>
<td>Aaron ROBOTHAM, Faculty, International Centre for Radio Astronomy Research / UWA</td>
</tr>
<tr>
<td>2:45-3:00 p.m.</td>
<td><strong>The Taipan Peculiar Velocity Survey</strong></td>
<td>ATC 101</td>
<td>Khaled SAID, Postdoctoral Fellow, Research School of Astronomy &amp; Astrophysics, Australian National University.</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td><strong>The Drivers of Stellar Populations in Early-type Galaxies</strong></td>
<td>ATC 101</td>
<td>Tania BARONE, PhD student, Australian National University</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td><strong>Impact of group environment on galaxy star formation in GAMA</strong></td>
<td>ATC 101</td>
<td>Stefania BARSANTI, PhD student, Macquarie University</td>
</tr>
<tr>
<td>2:00-2:15 p.m.</td>
<td><strong>Square Kilometre Array update</strong></td>
<td>EN 101</td>
<td>David LUCHETTI, Other, Mr</td>
</tr>
<tr>
<td>2:15-2:30 p.m.</td>
<td><strong>ASKAP commissioning and survey science update</strong></td>
<td>EN 101</td>
<td>Aidan HOTAN, Research Fellow, CSIRO</td>
</tr>
<tr>
<td>2:30-2:45 p.m.</td>
<td><strong>Low-frequency polarimetry on the path to the SKA: the POGS project</strong></td>
<td>EN 101</td>
<td>Christopher RISELEY, Postdoctoral Fellow, CSIRO Astronomy &amp; Space Science</td>
</tr>
<tr>
<td>2:45-3:00 p.m.</td>
<td><strong>The MWA GLEAM 4-Jy Sample</strong></td>
<td>EN 101</td>
<td>Sarah WHITE, Postdoctoral Fellow, Curtin University</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td><strong>Evolutionary Map of the Universe Early Science Results</strong></td>
<td>EN 101</td>
<td>Andrew O'BRIEN, PhD student, CSIRO</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td><strong>Low-Frequency Carbon Recombination Lines in the Orion Molecular Cloud Complex</strong></td>
<td>EN 101</td>
<td>Chenoa TREMBLAY, PhD student, ICRAR-Curtin University</td>
</tr>
</tbody>
</table>

**Afternoon Tea**

*Time: 3:30 p.m. to 4:00 p.m.*

*Location: ATC 101 foyer*
**Special session: Massively multiplexed spectroscopic surveys 2**  
4:00 p.m. - 5:30 p.m.

**Special session: SKA precursor science with ASKAP and MWA 4**  
4:00 p.m. - 5:30 p.m.

**Location: ATC 101**

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.  
**The SAMI Galaxy Survey: Second Public Data Release**  
Nic SCOTT, Research Fellow, The University of Sydney

5:00–5:15 p.m.  
**Spatially-resolved galaxy angular momentum**  
Sarah SWEET, Postdoctoral Fellow, Swinburne University of Technology

5:15–5:30 p.m.  
**Chasing the bright end of the z ~ 9-10 galaxy luminosity function with the BoRG**  
Stephanie BERNARD, PhD student, University of Melbourne

**Location: EN 101**

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**  
Hao QIU, PhD student, University of Sydney

5:00–5:15 p.m.  
**Early science results from the ASKAP-FLASH survey**  
Elizabeth MAHONY, Research Fellow, CSIRO Astronomy and Space Science

5:15–5:30 p.m.  
**The Australian SKA pathfinder: Exploring the transient radio Universe.**  
Shivani BHANDARI, Postdoctoral Fellow, CSIRO/ATNF

**A social outing is being organised to the Mount Burnett Observatory (MBO) on Tuesday, 26 June. MBO is a community astronomical facility in the Dandenong Ranges, east of Melbourne. The association is running both optical and radio facilities, is involved with astrophotography and augmented reality experimentation, so there will be lots ...**
Wed, 27 Jun

8:00 – 9:00 a.m. | 9:00 – 10:30 a.m. | 10:30 – 11:00 a.m. | 11:00 a.m. – 12:30 p.m. | 12:30 – 2:00 p.m. | 2:00 – 3:30 p.m. | 3:30 – 4:00 p.m. | 4:00 – 5:30 p.m. | 5:45 – 6:45 p.m. | 7:00 – 9:00 p.m.

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

<table>
<thead>
<tr>
<th>Heads of Departments Meeting</th>
<th>Arrival tea/coffee</th>
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</thead>
<tbody>
<tr>
<td>8:00 a.m. – 8:50 a.m.</td>
<td>8:30 a.m. – 9:00 a.m.</td>
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<tr>
<td><strong>Location:</strong> ATC 816</td>
<td><strong>Location:</strong> ATC 101 foyer</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Special session: ESO</th>
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<tbody>
<tr>
<td>9:00 a.m. - 10:30 a.m.</td>
<td></td>
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<tr>
<td><strong>Location:</strong> ATC 101</td>
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</table>

9:00-9:30 a.m.

*ESO in 2018*

Rob IVISON, Faculty, ESO

9:30-9:45 a.m.

*ESO: strategic partnership and full membership*

Matthew COLLESS, Faculty, ANU

9:45-10:00 a.m.

*Paranal and La Silla Update and Opportunities*

Michael IRELAND, Faculty, Australian National University

10:00-10:15 a.m.

*Update from your ESO Users Committee Representative*

Caroline FOSTER, Research Fellow, The University of Sydney

10:15-10:30 a.m.

*MAVIS: An Australian-led MCAO-Assisted Visible Imager and Spectrograph for the Very Large Telescope*

Richard MCDERMID, Faculty, Macquarie University

Wed, 27 Jun, 10:30 a.m. to 11:00 a.m.

Morning Tea
**Wed, 27 Jun, 10:30 a.m. to 11:00 a.m.**

**Location: ATC 101 foyer**

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**Wed, 27 Jun, 11:00 a.m. to 12:30 p.m.**

**ASA Annual General Meeting**

11:00 a.m. - 12:30 p.m.

**Location: ATC 101**

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**Wed, 27 Jun, 12:30 p.m. to 2:00 p.m.**

**Lunch**

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

**ANITA Chapter Town Hall Meeting**

1:00 p.m. - 2:00 p.m.

**Australia and eROSITA Meeting:**

strengthening the partnership

1:00 p.m. - 2:00 p.m.

**Location: ATC 101 foyer**

**Location: ATC 101**

**Location: EN 101**

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**Wed, 27 Jun, 2:00 p.m. to 3:30 p.m.**

**General session: Extragalactic astronomy 1**

2:00 p.m. - 3:30 p.m.

**General session: Planetary astrophysics**

2:00 p.m. - 3:30 p.m.

**National Committee for Astronomy (NCA)**

2:30 p.m. - 3:30 p.m.

**Location: ATC 101**

2:00–2:15 p.m.

**The mass dependance of Dark Matter Halo shapes and implications for cusps, cores and ultra diffuse galaxies**

**Chris BROOK**, Research Fellow, Universidad de La Laguna/Instituto de Astrofisica de Canarias

2:15–2:30 p.m.

**Resolving z ~2 galaxy using adaptive coadded source plane reconstruction**

**Soniya SHARMA**, PhD student, Australian National University

2:30–2:45 p.m.

**Thin disk and spiral arm formation at high redshift**

**Tiantian YUAN**, Research Fellow, Swinburne

2:45–3:00 p.m.

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**Location: EN 101**

2:00–2:15 p.m.

**Disks down under: dust traps in transition disks**

**Sarah MADDISON**, Faculty, Swinburne University of Technology

2:15–2:30 p.m.

**Early evolution of protostellar discs**

**Eloise BIRCHALL**, PhD student, Australian National University

2:30–2:45 p.m.

**Binary star formation, evolution of their discs and implications on planet formation.**

**Rajika KURUWITA**, PhD student, Australian National University

---

**Location: ATC 714**

Please note that NCA is scheduled from 2:30 p.m to 5:30 p.m.
<table>
<thead>
<tr>
<th>Early Metal Pollution in the AURORA Simulations</th>
<th>Jinglin ZHAO, PhD student, The University of New South Wales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam BATTEN, PhD student, Swinburne University of Technology</td>
<td>3:00-3:15 p.m.</td>
</tr>
<tr>
<td>3:00-3:15 p.m.</td>
<td>Searching for young exoplanets with high-contrast imaging in the near-infrared</td>
</tr>
<tr>
<td>The stellar kinematics and star-formation histories of high-redshift galaxies with KMOS@VLT</td>
<td>Alexander WALLACE, PhD student, Australian National University</td>
</tr>
<tr>
<td>Jon Trevor MENDEL, Postdoctoral Fellow, Australian National University</td>
<td>3:15-3:30 p.m.</td>
</tr>
<tr>
<td>3:15-3:30 p.m.</td>
<td>Enhanced Constraints on the Interior Composition and Structure of Rocky Exoplanets</td>
</tr>
<tr>
<td>Aaron LUDLOW, Research Fellow, ICRAR UWA</td>
<td>Haiyang WANG, PhD student, Research School of Astronomy and Astrophysics, The Australian National University</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Afternoon Tea</th>
<th>National Committee for Astronomy (NCA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30 p.m. - 4:00 p.m.</td>
<td>3:30 p.m. - 4:00 p.m.</td>
</tr>
<tr>
<td>ATC 101 foyer</td>
<td>Location: ATC 714</td>
</tr>
<tr>
<td></td>
<td>Please note that NCA is scheduled from 2:30 p.m to 5:30 p.m.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>General session: Extragalactic astronomy 2</th>
<th>General session: High energy astrophysics 2 + Education/outreach</th>
<th>National Committee for Astronomy (NCA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 p.m. - 5:30 p.m.</td>
<td>4:00 p.m. - 5:30 p.m.</td>
<td>4:00 p.m. - 5:30 p.m.</td>
</tr>
<tr>
<td>Location: ATC 101</td>
<td>Location: EN 101</td>
<td>Location: ATC 714</td>
</tr>
<tr>
<td>4:00-4:15 p.m.</td>
<td>4:10-4:15 p.m.</td>
<td>Please note that NCA is scheduled from 2:30 p.m to 5:30 p.m.</td>
</tr>
<tr>
<td>The Connection Between Structure and Cold Gas Reservoirs in Galaxies.</td>
<td>Neutrino astronomy with IceCube at the South Pole</td>
<td></td>
</tr>
<tr>
<td>Robin COOK, PhD student, International Centre for Radio Astronomy Research</td>
<td>Gary HILL, Faculty, University of Adelaide</td>
<td></td>
</tr>
<tr>
<td>4:15-4:30 p.m.</td>
<td>4:15-4:30 p.m.</td>
<td></td>
</tr>
<tr>
<td>The Indirect Influence of Quasars on Reionization</td>
<td>K2 Background Survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ryan RIDDEN-HARPER, PhD student, Australian National University</td>
<td></td>
</tr>
</tbody>
</table>
Wednesday, 27th June, 3:00 p.m. to 6:45 p.m.

**Evening Event: ATNF Town Hall Meeting**

4:30-4:45 p.m.

*Selection and characterization of Lyman Continuum Galaxies*

**Uroš MEŠTRIĆ**, PhD student, CAS

4:45-5:00 p.m.

*HI Galaxies with Little Star Formation*

**Vaishali PARKASH**, PhD student, Monash University

5:00-5:15 p.m.

*Cool and Close Encounters of the HI Kind*

**Michelle CLUVER**, Faculty, Swinburne University of Technology, Centre for Astrophysics and Supercomputing

5:15-5:30 p.m.

*The Economics of First Galaxies Growth*

**Alan R DUFFY**, Faculty, Swinburne University of Technology

4:45-5:00 p.m.

*New frontiers in optical fast-transient discovery*

**Igor ANDREONI**, PhD student, Swinburne University of Technology

5:00-5:15 p.m.

*My five months in industry*

**Caitlin ADAMS**, PhD student, Ms.

5:15-5:30 p.m.

*The Parkes Radio Telescope as a tool for STEM engagement*

**Jimi GREEN**, Faculty, CSIRO Astronomy and Space Science

5:15-5:30 p.m.

*Studying broadband radio spectra in the classroom*

**Darren HAMLEY**, Masters student, Willetton Senior High School/Edith Cowan University

Wednesday, 27th June, 7:00 p.m. to 9:00 p.m.

**Harley Wood Public Lecture**

7:00 p.m. - 9:00 p.m.

The Harley Wood Lecture was inaugurated in 1984 as an annual lecture in honour of the first President of the Astronomical Society of Australia (ASA).

This year’s Harley Wood Lecture will take place in **ATC 101** at the Swinburne Hawthorn Campus. The talk will be delivered by Professor Lisa Kewley, Director of ...
**Thu, 28 Jun**

- **8:30 – 9:00 a.m.** | **9:00 – 10:00 a.m.** | **10:00 – 10:15 a.m.** | **10:15 – 10:30 a.m.** | **10:30 – 11:00 a.m.** | **11:00 – 11:30 a.m.** | **11:30 a.m. – 12:15 p.m.** | **12:15 – 12:30 p.m.** | **12:30 – 2:00 p.m.** | **2:00 – 3:30 p.m.** | **3:30 – 4:00 p.m.** | **4:00 – 5:30 p.m.** | **7:00 – 11:00 p.m.**

**Thu, 28 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*

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

- **Special session: The future of Australian optical astronomy**
  9:00 a.m. - 10:00 a.m.

  *Location: ATC 101*

<table>
<thead>
<tr>
<th>9:00-9:20 a.m.</th>
<th>9:20-9:40 a.m.</th>
<th>9:40-10:00 a.m.</th>
</tr>
</thead>
</table>
  | *The Future of Astronomical Support at the Anglo-Australian Telescope*  
  *Chris LIDMAN, Professional staff, Australian National University*  
  | *A new era for optical astronomical instrumentation in Australia*  
  *Michael STEEL, Faculty, Macquarie University*  
  | *Discussion and Q&A - led by Chris Lidman and Michael Steele*  
  *Chris LIDMAN, Professional staff, Australian National University*  

**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*

**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

### 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

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30-11:45 a.m.</td>
<td>Dark Matter direct detection in Australia</td>
<td>Elisabetta BARBERIO, Professional staff, The University of Melbourne</td>
</tr>
<tr>
<td>11:45 a.m.-12:00 p.m.</td>
<td>The SkyHopper CubeSat: Big Science with a Tiny Telescope</td>
<td>Michele TRENTI, Faculty, University of Melbourne</td>
</tr>
<tr>
<td>12:00-12:15 p.m.</td>
<td>The UWL on Parkes -- Early results and future science</td>
<td>Jane KACZMAREK, Postdoctoral Fellow, CSRIO Astronomy &amp; Space Science</td>
</tr>
</tbody>
</table>

### 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

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

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

Location: ATC 101 foyer

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

Location: ATC 101
### Special session: GALAH, Gaia and the Galaxy 1
2:00 p.m. – 3:30 p.m.

**Location:** EN 101

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

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

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**Afternoon Tea**

**3:30 p.m. – 4:00 p.m.**

**Location:** ATC 101 foyer
# Thu, 28 Jun, 4:00 p.m. to 5:30 p.m.

<table>
<thead>
<tr>
<th><strong>General session: Cosmology</strong>&lt;br&gt;4:00 p.m. - 5:30 p.m.</th>
<th><strong>Special session: GALAH, Gaia and the Galaxy 2</strong>&lt;br&gt;4:00 p.m. - 5:30 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location: ATC 101</strong></td>
<td><strong>Location: EN 101</strong></td>
</tr>
<tr>
<td>4:00-4:15 p.m.</td>
<td>4:00-4:15 p.m.</td>
</tr>
<tr>
<td><em>Cosmology with the Dark Energy Survey</em></td>
<td><em>Substructures and tidal distortions in the Magellanic stellar periphery</em></td>
</tr>
<tr>
<td><strong>Tamara DAVIS</strong>, Faculty, University of Queensland</td>
<td><strong>Dougal MACKLEY</strong>, Research Fellow, Australian National University</td>
</tr>
<tr>
<td>4:15-4:30 p.m.</td>
<td>4:15-4:30 p.m.</td>
</tr>
<tr>
<td><em>eROSITA: Cosmology and astrophysics with the next generation X-ray all-sky survey</em></td>
<td><em>Confirmation for a binary origin for blue straggler stars in Magellanic Cloud clusters</em></td>
</tr>
<tr>
<td><strong>Kirpal NANDRA</strong>, Faculty, Max Planck Institute for Extraterrestrial Physics</td>
<td><strong>Chengyuan LI</strong>, Postdoctoral Fellow, Dept of Physics &amp; Astronomy, Macquarie University</td>
</tr>
<tr>
<td>4:30-4:45 p.m.</td>
<td>4:30-4:45 p.m.</td>
</tr>
<tr>
<td><em>Cross-correlation of Cosmic Microwave Background lensing from POLARBEAR experiment with the H-ATLAS of dusty interstellar medium galaxies</em></td>
<td><em>Pushing the envelope on globular clusters</em></td>
</tr>
<tr>
<td><strong>Anh PHAM</strong>, PhD student, The University of Melbourne</td>
<td><strong>Jeffrey SIMPSON</strong>, Postdoctoral Fellow, Australian Astronomical Observatory</td>
</tr>
<tr>
<td>4:45-5:00 p.m.</td>
<td>4:45-5:00 p.m.</td>
</tr>
<tr>
<td><em>Polarisation Properties of Extragalactic Radio Sources Observed with SPTpol 500 deg^2 survey</em></td>
<td><em>Post-Asymptotic Giant Branch (post-AGB) Stars as Tracers of the Origin of Elements in the Universe</em></td>
</tr>
<tr>
<td><strong>Nikhel GUPTA</strong>, Postdoctoral Fellow, School of Physics, University of Melbourne</td>
<td><strong>Devika KAMATH</strong>, Faculty, Macquarie University</td>
</tr>
<tr>
<td>5:00-5:15 p.m.</td>
<td>5:00-5:15 p.m.</td>
</tr>
<tr>
<td><em>First ever cluster lensing detection in CMB polarisation data</em></td>
<td><em>On the Peculiar Lives of Low-Mass Primordial Stars</em></td>
</tr>
<tr>
<td><strong>Sanjaykumar PATIL</strong>, PhD student, University of Melbourne</td>
<td><strong>Simon CAMPBELL</strong>, Research Fellow, Monash University</td>
</tr>
<tr>
<td>5:15-5:30 p.m.</td>
<td>5:15-5:30 p.m.</td>
</tr>
<tr>
<td><em>Updating Microlensing Constraints on Primordial Black Holes</em></td>
<td><em>Dredge-up Main-Sequence O stars: implications for the Epoch of Reionization and chemical evolution of the Universe</em></td>
</tr>
<tr>
<td><strong>Josh CALCINO</strong>, PhD student, University of Queensland</td>
<td><strong>Arpita ROY</strong>, Postdoctoral Fellow, ANU</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th><strong>ASA Conference Dinner</strong>&lt;br&gt;7:00 p.m. - 11:00 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Registration required</strong></td>
</tr>
</tbody>
</table>
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

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

Location: ATC 101
### 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

### 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

### 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.

**Investigating black hole spin with gravitational waves**

*Grant David MEADORS*, Research Fellow, Monash University

### 9:45–10:00 a.m.

**Dances with Death: The Dynamics of Compact Binary Pairs as Gravitational Wave Sources**

*Sera Jade RAUHUT*, Undergraduate/honours student, Swinburne University of Technology

### 10:00–10:15 a.m.

**An X-ray guided search for gravitational waves**

*Nikhil SARIN*, PhD student, Monash University

### 10:15–10:30 a.m.

**Insights into double neutron star and double black hole formation with COMPAS**

*Simon STEVENSON*, Postdoctoral Fellow, Swinburne University of Technology

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**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*

**Special session: Multi-messenger astronomy 3**

11:00 a.m. - 12:30 p.m.

*Location: ATC 101*
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:15 a.m.</td>
<td>Titans of the Early Universe: The origin of the most massive, high-redshift quasars</td>
<td>Tyrone E. WOODS, Research Fellow, Monash University</td>
</tr>
<tr>
<td>11:15-11:30 a.m.</td>
<td>Infer Structure of Quasar with Machine Learning</td>
<td>Suk Yee YONG, PhD student, The University of Melbourne</td>
</tr>
<tr>
<td>11:30-11:45 a.m.</td>
<td>Calibrating the James Webb Space Telescope filters as star formation rate indicators</td>
<td>Madhooshi Ruwanpura SENARATH, PhD student, Monash centre for Astrophysics, School of physics and Astronomy, Monash University</td>
</tr>
<tr>
<td>11:45 a.m.-12:00 p.m.</td>
<td>Stellar Populations and Dynamical Modelling of Early-Type Galaxies using MUSE</td>
<td>Christina BALDWIN, PhD student, Macquarie University</td>
</tr>
<tr>
<td>12:00-12:15 p.m.</td>
<td>The globular cluster system of NGC 4526</td>
<td>Leonie CHEVALIER, Masters student, Swinburne University of Technology</td>
</tr>
<tr>
<td>12:15-12:30 p.m.</td>
<td>The Chemical and Dynamical Composition of NGC 3115</td>
<td>Adriano POCI, PhD student, Macquarie University</td>
</tr>
</tbody>
</table>

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*
**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*

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:45–2:00 p.m.</td>
<td>The FunnelWeb Survey: Spectroscopic Stellar Parameters for All Southern Stars in the Gaia Era</td>
<td>Adam RAINS, PhD student, Australian National University</td>
</tr>
<tr>
<td>2:00–2:15 p.m.</td>
<td>The photometric selection of M-dwarfs using Gaia, WISE and 2MASS photometry</td>
<td>John BENTLEY, PhD student, University of New South Wales</td>
</tr>
<tr>
<td>2:15–2:30 p.m.</td>
<td>Flying the nest to the Magellanic Clouds and Bridge with GALAH and TESS-HERMES</td>
<td>Jeffrey SIMPSON, Postdoctoral Fellow, Australian Astronomical Observatory</td>
</tr>
</tbody>
</table>

**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*
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.