# **Program**

# From Black Hole to Environment: Galaxy Evolution over Multiple Wavelengths

Barton Theatre, Crawford School of Business, Australian National University 21-24 August 2017

### **MONDAY 21 AUGUST 2017**

Time	Item	
8:30am – 9:50am	Registration Desk Open Foyer of Barton Theatre Crawford School of Business, Australian National University	
Welcome		
10:00am	Welcome/Acknowledgement of Country  Barton Theatre, Australian National University	
10:05am – 10:15am	Welcome and Workshop Objectives Julie Banfield, SOC/LOC Chair	
10:15am – 10:45am	Jorge Moreno (invited review)  Conference Overview  Galaxy Mergers and Interactions: Lessons Learned from Observations and Simulations  (25 minute presentation + 5 minute Q&A)	
Session I: Galaxy Cluster I Session Chair: Ivy Wong		
10:45am – 11:15am	Melanie Johnston Hollitt (invited review)  Galaxy Groups, Clusters, and Large Scale Structure: Open Questions and Opportunities  (25 minute presentation + 5 minute Q&A)	
11:15am – 11:35am	Scott Barrows  Evolution of Stellar Populations and Supermassive Black Holes in Late- Stage Galaxy Mergers  (17 minute presentation + 3 minute Q&A)	

11:35am – 11:45am	Martin Krause  Jets Signify Close Binary Supermassive Black Holes  (8 minute presentation + 2 minute Q&A)
11:45am – 12:00pm	Poster Sparklers (1 minute presentations)
12:00pm – 1:30pm	<b>Lunch</b> Foyer of Barton Theatre

## Session II: Galaxy Cluster II Session Chair: Sukyoung Yi

1:30pm – 1:50pm	Sarah Brough  Environment or Mass? The Kinematic Morphology-Density Relationship  (17 minute presentation + 3 minute Q&A)
1:50pm – 2:00pm	Lauranne Lanz  AGN in Early Phases of Galaxy Transformation (8 minute presentation + 2 minute Q&A)
2:00pm – 2:10pm	Tiffany Day  Major Cluster Mergers as Drivers of Galaxy Evolution and Transformation (8 minute presentation + 2 minute Q&A)
2:10pm – 3:00pm	Discussion Panel 1 Chair: Johnston-Hollitt Barrows, Krause, Lanz, Brough
3:00pm – 3:30pm	Afternoon Tea Foyer of Barton Theatre

### Session III: High Redshift Universe I Session Chair: Sarah White Elisabete da Cunha (invited survey) The TAIPAN Galaxy Survey: Towards a new Galaxy Evolution Sample in the 3:30pm - 3:45pm Local Universe (12 minute presentation + 3 minute Q&A) **Jacinta Delhaize** Statistical Studies of Star Formation in AGN to z~5 from a Combined 3:45pm - 4:05pm Infrared and Radio Continuum Perspective (17 minute presentation + 3 minute Q&A) **Colin DeGraf** 4:05pm - 4:15pm Supermassive Black Hole Seeds in Cosmological Simulations (8 minute presentation + 2 minute Q&A) **Discussion Panel 2** Chair: Wolf 4:15pm - 5:00pm Falkendal, Delhaize, DeGraf, Bian **Welcome Reception/Poster Session** 5:00pm - 6:30pm Foyer Barton Theatre 6:30pm **Dinner – Delegates Own Choice**

### **TUESDAY 22 AUGUST 2017**

Time	Item
8:30am – 8:55am	Registration Desk Open Foyer of Barton Theatre
8:55am – 9:00am	Announcements  Julie Banfield/Kylie Williams
Session IV: High Redshift II	

# Session Chair: :

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9:00am – 9:20am	Mike Dopita  Results from S7: The Siding Spring Southern Seyfert Spectroscopic  Snapshot Survey  (17 minute presentation + 3 minute Q&A)
9:20am – 9:40am	Theresa Falkendal  Evidence for Quenching in High Redshift Radio Galaxies from Multi- Resolution Radio-to-IR SED Fitting.  (17 minute presentation + 3 minute Q&A)
9:40am- 9:50am	Fuyan Bian  Massive Galaxy Formation: What can we Learn from the most Luminous  Lyman Break Galaxies at Redshift z=3  (8 minute presentation + 2 minute Q&A)
9:50am – 9:55am	William Pearson  The Main Sequence of Star Forming Galaxies beyond Herschel's Confusion Limit  (5 minute presentation)
9:55am – 10:05am	O. Ivy Wong  Radio Galaxy Zoo Data Release 1  (8 minute presentation + 2 minute Q&A)
10:05am – 11:00am	Morning Tea Foyer of Barton Theatre

Session V: Galaxy Cluster III Session Chair: Anna Zovaro	
11:00am – 11:10am	Marvin Blank The NIAHO Project: High Resolution Simulations of Galaxy Formation and Evolution (8 minute presentation + 2 minute Q&A)
11:10am – 11:30am	Sukyoung Yi  Zoom-in Hydrodynamic Simulations of Clusters and Galaxy Evolution  (17 minute presentation + 3 minute Q&A)
11:30am – 11:40am	Fulai Guo  Reversing Cooling Flows with AGN-Driven Shock Waves  (8 minute presentation + 2 minute Q&A)
11:40am – 11:50am	Andra Stroe  Cosmic Tsunamis and Tornadoes (8 minute presentation + 2 minute Q&A)
11:50am – 12:30pm	Discussion Panel 3 Chair: Dopita Blank, Guo, Stroe, Yi
12:30pm – 2:00pm	<b>Lunch</b> Foyer of Barton Theatre
Session VI: High Reds Session Chair: Scott (	
2:00pm – 2:15pm	Natasha Hurley-Walker (invited survey - remote) GLEAM: Exploring the Births and Deaths of AGN (12 minute presentation + 3 minute Q&A)
2:15pm – 2:45pm	Nicole Nesvadba (invited review)  AGN Fuelling and Feedback in the Early Universe What do we Really Know?  (25 minute presentation + 5 minute Q&A)
2:45pm – 3:05pm	Jonathan Rogers  Energetics of Radio-Loud AGN from Multiwavelength Surveys  (17 minute presentation + 3 minute Q&A)
3:05pm – 3:15pm	Theresa Falkendal  ALMA Reveals Large Scale [CI] Emission Around a High Redshift Galaxy (8 minute presentation + 2 minute Q&A)

3:15pm – 3:25pm	Darshan Kakkad Ionized and Molecular Gas Studies to Unveil AGN Feedback at High Redshift (8 minute presentation + 2 minute Q&A)
3:25pm – 3:35pm	Ross Turner Radio Galaxies as Standard Candles (8 minute presentation + 2 minute Q&A)
3:35pm – 3:40pm	Yuxiang Qin  DRAGONS: The Small Contribution of Quasars to Reionization (5 minute presentation)
3:40pm – 4:00pm	Afternoon Tea Foyer of Barton Theatre

Session VII: High Redshift Universe IV Session Chair: Dipanjan Mukherjee

4:00pm – 4:20pm	Lilian Garratt-Smithson Slow and Steady to Win the Race? High Mass X-Ray Binary Feedback in
4.00μπ 4.20μπ	Low-Mass Galaxies (17 minute presentation + 3 minute Q&A)
4:20pm – 4:30pm	Christian Wolf The Growth of Supermassive Black Holes 1 GYr after the Big Bang (8 minute presentation + 2 minute Q&A)
4:30pm – 4:40pm	Guillaume Drouart  AGN Evolution from the Radio SED of High-Z Powerful Radio Galaxies (8 minute presentation + 2 minute Q&A)
4:40pm – 4:50pm	Rajan Chhetri Properties of Subarcsecond Compact Source Population Identified using Widefield Interplanetary Scintillation with the MWA (8 minute presentation + 2 minute Q&A)
4:50pm – 5:30pm	Discussion Panel 4 Chair: Nesvadba Turner, Garratt-Smithson, Kakkad, Drouart
5:30pm – 6:30pm	Poster Session (food + drinks) Dinner – delegates own choice

### **WEDNESDAY 23 AUGUST 2017**

Time	Item		
8:30am – 8:55am	Registration Desk Open Foyer of Barton Theatre		
8:55am – 9:00am	Announcements Julie Banfield/Kylie Williams		
	Session VIII: Low Redshift Universe I Session Chair: Enrico Di Teodoro		
9:00am – 9:30am	Sugata Kaviraj (invited review)  The Triggering of AGN in the Local Universe and their Role in Shaping Galaxy Evolution  (25 minute presentation + 5 minute Q&A)		
9:30am – 9:50am	Anna Ferre-Mateu  SMBHs Coevolution Challenged by nearby Fossil Red Nuggets.  (17 minute presentation + 3 minute Q&A)		
9:50am- 10:00am	Meiert Grootes  The Baryon Cycle and its (lack of) Environmental Dependencies (8 minute presentation + 2 minute Q&A)		
10:00am – 10:10am	Sanchayeeta Borthakur  What does the Circumgalactic Medium tell us about the Galaxy Color  Dichotomy  (8 minute presentation + 2 minute Q&A)		
10:10am – 10:15am	Sarah White The MWA GLEAM 4-Jy Sample (5 minute presentation)		
10:15am – 11:00am	Morning Tea Foyer of Barton Theatre		

Session IX: Low Redshift II Session Chair: William Pearson		
11:00am – 11:20am	Julie Banfield  Shaping the Circumgalactic Medium Through Radio-Loud AGN Interactions on KPC Scales  (17 minute presentation + 3 minute Q&A)	
11:20am – 11:30am	Elizabeth Mahony  Jet-Driven Outflows of Cold Gas: The Case of 3C293  (8 minute presentation + 2 minute Q&A)	
11:30am – 11:40am	Philip Taylor  Galaxies Growing Old: The Transition to Quiescence at 3x10^10 Solar  Masses  (8 minute presentation + 2 minute Q&A)	
11:40am – 11:50am	Stas Shabala Fundamentally Confused? Nature, Nurture and Radio Galaxy Scaling Relations (8 minute presentation + 2 minute Q&A)	
11:50am – 11:55am	Lucia Armillotta The Physics of the Disc-Corona Interface: How Feedback Regulates Accretion and Quenching (5 minute presentation)	
11:55am – 12:30pm	<b>Discussion Panel 5</b> Chair: Kaviraj Ferre-Mateu, Borthakur, Taylor, Grootes, Mahoney, Krumholz	
12:30pm – 2:00pm	<b>Lunch</b> Foyer of Barton Theatre	
Session X: Low Redshift III Session Chair: Lauranne Lanz		
2:00pm – 2:15pm	Christian Wolf SkyMapper (12 minute presentation + 3 minute Q&A)	
2:15pm – 2:45pm	Katey Alatalo (invited review)  Shining Light on the Pathways of Galaxy Transformation (25 minute presentation + 5 minute Q&A)	

2:45pm – 3:05pm	Angel Lopez-Sanchez The Neutral Gas Content of the CALIFA Galaxies (17 minute presentation + 3 minute Q&A)
3:05pm – 3:15pm	Scott Croom  Resolving Environmental Quenching of Star Formation with SAMI (8 minute presentation + 2 minute Q&A)
3:15pm – 3:25pm	Adam Thomas Spatially-Resolved Measurements of Narrow Line Region and HII Region Abundances in an Active Galaxy (8 minute presentation + 2 minute Q&A)
3:25pm – 3:30pm	Darshan Kakkad Spatially Resolved Electron Density and ISM Conditions in Low-Redshift AGNs (5 minute presentation)
3:30pm – 4:00pm	Afternoon Tea Foyer of Barton Theatre

### Session XI: Low Redshift IV Session Chair: Jonathan Rogers

4:00pm – 4:20pm	Dan Taranu Feedback and the Structure of Local Galaxies: Insight from Simulations and Integral Field Kinematics (17 minute presentation + 3 minute Q&A)
4:20pm – 4:30pm	Sarah White Accretion and Star Formation in "Radio-Quiet" Quasars (8 minute presentation + 2 minute Q&A)
4:30pm – 4:40pm	Jesse Swan Cosmic Evolution of Star Formation and AGN Activity as Probed by ATLAS (8 minute presentation + 2 minute Q&A)
4:40pm – 4:50pm	Kevin Schawinski  A Universal Model for the AGN Phenomenon (8 minute presentation + 2 minute Q&A)
4:50pm – 5:30pm	Discussion Panel 6 Chair: Croom Taranu, Alatalo, Schawinski, White
7:00pm – 10:00pm	Conference Dinner Old Parliament House

### **THURSDAY 24 AUGUST 2017**

Time	Item	
8:30am – 8:55am	Registration Desk Open Foyer of Barton Theatre	
8:55am – 9:00am	Announcements Julie Banfield/Kylie Williams	
Session XII: Centre of Galaxies I Session Chair: Tiffany Day		
9:00am – 9:30am	Chris Power (invited review)  AGN Feeding and Feedback in Central Galaxies  (25 minute presentation + 5 minute Q&A)	
9:30am – 9:50am	Martin Bourne Simulation of Jets and Winds from Supermassive Black Holes (17 minute presentation + 3 minute Q&A)	
9:50am- 10:00am	Rainer Weinberger  Supermassive Black Hole Feedback in the Next Generation Illustris  Simulations  (8 minute presentation + 2 minute Q&A)	
10:00am – 10:10am	Renuka Pechetti  Enhanced Mass-to-Light Ratios in Low Mass Early Type Galaxies (8 minute presentation + 2 minute Q&A)	
10:10am – 10:20am	Dipanjan Mukherjee  Relativistic Jet Feedback in Gas Disks  (8 minute presentation + 2 minute Q&A)	
10:20am – 11:00am	Morning Tea Foyer of Barton Theatre	

Session XIII: Centre of Galaxies II Session Chair: Guillaume Drouart		
11:00am – 11:20am	Geoff Bicknell (invited)  Relativistic Jet Feedback in Evolving Galaxies  (17 minute presentation + 3 minute Q&A)	
11:20am – 11:30am	Robert Schulz  Jet-Driven HI Outflows in Radio Galaxies — A VLBI Perspective (8 minute presentation + 2 minute Q&A)	
11:30am – 11:40am	Anna Zovaro  Catching Feedback in the Act at the Sub-KPC Scale  (8 minute presentation + 2 minute Q&A)	
11:40am – 11:50am	Michael Drinkwater Black Holes in Both Normal and Disrupted Dwarf Galaxies (8 minute presentation + 2 minute Q&A)	
11:50am – 11:55am	Darren Croton The Many Lives of AGN II: The Formation and Evolution of Radio Jets and their Impact on Galaxy Evolution (5 minute presentation)	
11:55am – 12:30pm	Discussion Panel 7 Chair: Bland-Hawthorn Power, Bourne, Croton, Pechetti	
12:30pm – 1:30pm	<b>Lunch</b> Foyer of Barton Theatre	
Session XIV: Centre of Galaxies III Session Chair: Lucia Armillotta		
1:30pm – 1:45pm	Julia Bryant (invited survey) The SAMI Galaxy Survey: Origins of Gas in Galaxies Traced by Kinematic Misalignments (12 minute presentation + 3 minute Q&A)	
1:45pm – 2:15pm	Mark Krumholz (invited review) Star Formation, Fuelling and Feedback in Galactic Centres (25 minute presentation + 5 minute Q&A)	
2:15pm – 2:35pm	Pei-Ying Hsieh The Fossil Nuclear Outflow in the Central 30pc of the Galactic Center (17 minute presentation + 3 minute Q&A)	

2:35pm – 2:45pm	Enrico Di Teodoro  Atomic Hydrogen Clouds Tracing the Galactic Nuclear Outflow (8 minute presentation + 2 minute Q&A)
2:45pm – 2:55pm	Joss Bland-Hawthorn The Milky Way: Evidence for the Seyfert Activity in the Recent Past (8 minute presentation + 2 minute Q&A)
2:55pm – 3:30pm	Afternoon Tea Foyer of Barton Theatre

# Session XV: Centre of Galaxies IV Session Chair: Julia Bryant

3:30pm – 3:50pm	Sebastian Bustamante Jaramillo Spin Evolution of Supermassive Black Holes in a Cosmological Context (17 minute presentation + 3 minute Q&A)
3:50pm – 4:00pm	Natalia Eire Sommer  Reverberation Mapping with DES/OzDES  (8 minute presentation + 2 minute Q&A)
4:00pm – 4:20pm	Conference Summary Stas Shabala & Ivy Wong (20 minute presentation)
4:20pm	CLOSE