



## PROGRAM

### 2014 ANNUAL SCIENTIFIC CONFERENCE

# Supernovae in the Local Universe: Celebrating 10,000 days of Supernova 1987A

10<sup>th</sup>-15<sup>th</sup> August  
Coffs Harbour, NSW, Australia

## SUNDAY 10 AUGUST 2014

Time	Item
3:00pm	Registration Desk Opens Jetty Harbour Room
5:00pm	Welcome Drinks Charlie's Decks
	<b>Dinner</b> Delegates own choice Options: <ul style="list-style-type: none"><li>• Charlie's Restaurant</li><li>• Room Service</li><li>• Coffs Harbour City Centre (Taxi at own cost)</li></ul>

## Supernovae in the Local Universe: Celebrating 10,000 days of Supernova 1987A

### MONDAY 11 AUGUST 2014

Time	Item
6:30am	<i>Optional Activity</i> Walk – Charlesworth Bay to Korora Bay
7:00am	<b>Breakfast</b> <i>Charlie's Restaurant</i>
7:30am – 8:50am	<b>Registration Desk Open</b>
<b>Welcome</b>	
9:00am	<b>Welcome/Acknowledgement of Country</b> <i>Jetty Harbour Room</i>
9:05am – 9:15am	<b>Welcome and Conference Overview</b> Bryan Gaensler
<b>Session I: 10,000 Days of Supernova 1987A</b> <b>Session Chair: Bryan Gaensler</b>	
9:15am – 9:40am	Dick McCray (invited talk) <i>Supernova 1987A at 10,000 days</i> (25 min presentation)
9:40am– 10:05am	Josefin Larsson (invited talk) <i>The ejecta of SN 1987A at 10,000 days</i> (25 min presentation)
10:05am – 10:20am	Giovanna Zanardo <i>Spectral &amp; morphological analysis of the remnant of Supernova 1987A with ALMA &amp; ATCA</i> (15 min presentation)
10:20am – 10:35am	Mikako Matsuura <i>Herschel and ALMA observations of supernova 1987A</i> (15 min presentation)
10:35am – 11:00am	Claes Fransson (invited talk) <i>Physical Conditions in the SN 1987A Ejecta at 10,000 days</i> (25 min presentation)
11:00am – 11:20am	Group questions and discussions (20 min Q&A)

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11:20am – 11:50am	<b>Morning Tea</b> <b>Island Courtyard</b>
<b>Session II: Unusual &amp; Unique Objects</b> <b>Session Chair: Stuart Ryder</b>	
11:50am – 12:20pm	Raffaella Margutti (invited talk) <i>Supernova 2009ip: Supernova or imposter?</i> (25 min presentation & 5 min Q&A)
12:20pm – 12:35pm	Fang Yuan <i>Locations of Peculiar Supernovae as a Diagnostic of Their Origins</i> (12min presentation & 3 min Q&A)
12:35pm – 1:05pm	Nathan Smith (invited talk) <i>Pre-Supernova Eruptions and the Fates of Massive Stars</i> (25 min presentation & 5 min Q&A)
1:05pm – 2:30pm	<b>Lunch</b> <b>Charlies Restaurant</b>
<b>Session III: Unique Measurements</b> <b>Session Chair: Jeremy Mould</b>	
2:30pm – 3:00pm	Avishay Gal-Yam (invited talk) <i>Supernova flash spectroscopy: a new observational window into stellar death</i> (25 min presentation & 5 min Q&A)
3:00pm – 3:15pm	Nadejda Blagorodnova <i>Gaia: A Supernova Discovery Machine</i> (12 min presentation & 3 min Q&A)
3:15pm- 3:30pm	Brad Tucker <i>KEGS - The Kepler Extra-Galactic Survey</i> (12 min presentation & 3 min Q&A)
3:30pm	<b>Afternoon Tea</b> <b>Island Courtyard</b>
3:35pm – 5:30pm	Poster Session & Social Gathering/Supernova Bingo
6:30pm	<b>Dinner</b> <i>Buffet Dinner – Charlie's Restaurant</i>

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**TUESDAY 12 AUGUST 2014**

Time	Item
6:30am	<i>Optional Activity</i> Beach Volley Ball
7:00am	<b>Breakfast</b> <i>Charlie's Restaurant</i>
8:55am – 9:00am	<b>Announcements</b>
<b>Session IV: Nearby Core Collapse Supernovae</b> <b>Session Chair: Christina Thöne</b>	
9:00am – 9:30am	Stephen Smartt (invited talk) <i>Observational constraints on progenitors of nearby supernovae</i> (25 min presentation & 5 min Q&A)
9:30am – 9:45am	Ori Fox <i>Uncovering the Putative B-Star Binary Companion of the SN 1993J Progenitor</i> (12 min presentation & 3 min Q&A)
9:45am – 10:00am	Melina Bersten <i>The First Evidence of a Binary Progenitor for a Type Ib Supernova</i> (12 min presentation & 3 min Q&A)
10:00am – 10:15am	Michael Bietenholz Two Newly-Resolved Supernovae: SN 2011dh and SN 1996cr (12 min presentation & 3 min Q&A)
10:15am – 10:30am	Isaac Shivvers <i>Young Type II<sub>n</sub> Supernova 1998S in High Resolution</i> (12 min presentation & 3 min Q&A)
<b>10:30am – 11:00am</b>	<b>Morning Tea</b> <b>Island Courtyard</b>
<b>Session V: Stellar Populations, Core Collapse and Progenitors</b> <b>Session Chair: Kate Maguire</b>	
11:00am – 11:30am	Paul Crowther (invited talk) <i>Observations of massive star populations in nearby galaxies</i> (25 min presentation & 5 min Q&A)
11:30am – 12:00pm	Joe Anderson (invited talk) <i>Statistical studies of supernova environments</i> (25 min presentation & 5 min Q&A)

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12:00pm - 12:15pm	Ben Davies <i>How Cool Are Red Supergiants? Obtaining accurate masses for SN-IIP progenitors</i> (12 min presentation & 3 min Q&A)
12:15pm - 12:30pm	Maryam Modjaz <i>CfA Spectra of 73 Stripped Supernovae &amp; Implications for the Spectroscopic SN-GRB Connection</i> (12 min presentation & 3 min Q&A)
<b>12:30pm – 2:00pm</b>	<b>Lunch</b> <b>Charlies Restaurant</b>
<b>Session VI: Stellar Populations, Core Collapse and Progenitors (continued)</b> <b>Session Chair: Schuyler Van Dyk</b>	
2:00pm – 2:30pm	Selma de Mink (invited talk) <i>Binary Interactions: Theory And Population Synthesis</i> (25 min presentation & 5 min Q&A)
2:30pm – 3:00pm	Sung-Chul Yoon (invited talk) <i>Progenitors of Type Ib/c supernovae</i> (25 min presentation & 5 min Q&A)
3:00pm – 3:15pm	John Eldridge <i>Unveiling the progenitors of type Ib/c Supernovae</i> (12 min presentation & 3 min Q&A)
3:15pm – 3:30pm	Frederica Bianco <i>Probing the progenitors channels of stripped SN with the CfA SN sample</i> (12 min presentation & 3 min Q&A)
<b>3:30pm – 4:00pm</b>	<b>Afternoon Tea</b> <b>Island Courtyard</b>

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<b>Session VII: Stellar Populations, Core Collapse and Progenitors (continued)</b> <b>Session Chair: Maryam Modjaz</b>	
4:00pm – 4:15pm	Anders Jerkstrand <i>Progenitor masses of Type IIb supernovae from nebular phase spectral modelling</i> (12 min presentation & 3 min Q&A)
4:15pm – 4:30pm	Alceste Bonanos <i>A survey of dusty, evolved, massive stars in the nearby Universe</i> (12 min presentation & 3 min Q&A)
4:30pm – 4:45pm	Morgan Fraser <i>Solving the red supergiant problem?</i> (12 min presentation & 3 min Q&A)
4:45pm – 5:15pm	Thierry Foglizzo (invited talk) <i>The explosion mechanism of core collapse supernovae</i> (25 min presentation & 5 min Q&A)
<b>6:30pm</b>	<b>Dinner</b> <i>BBQ by the Pool</i>

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**WEDNESDAY 13 AUGUST 2014**

Time	Item
6:30am	<i>Optional Activity</i> Tennis
7:00am	Breakfast Charlie's Restaurant
8:55am – 9:00am	<b>Announcements</b>
<b>Session VIII: 10,000 Days of Supernova 1987A (continued)</b> <b>Session Chair: Lister Staveley-Smith</b>	
9:00am – 9:15am	Ivo Seitenzahl <i>The Light Curve of SN 1987A Revisited: Constraining Production Masses Of Radioactive Nuclides</i> (12 min presentation & 3 min Q&A)
9:15am – 9:30am	Dick Manchester <i>9999 Days of Radio Observations of SN 1987A</i> (12 min presentation & 3 min Q&A)
9:30am – 9:45am	Kari Frank <i>New Chandra ACIS Observations of SN 1987A</i> (12 min presentation & 3 min Q&A)
9:45am – 10:00am	Paul Lasky <i>Gravitational waves from a possible neutron star in the supernova remnant 1987A</i> (12 min presentation & 3 min Q&A)
<b>10:00am – 10:30am</b>	<b>Morning Tea</b> <b>Island Courtyard</b>
<b>Session IX: Unusual &amp; Unique Objects (continued)</b> <b>Session Chair: Chris Lidman</b>	
10:30am – 11:00am	Ferdinando Patat (invited talk) <i>Spectropolarimetry and Asphericity of Supernovae</i> (25 min presentation & 5 min Q&A)
11:00am – 11:15am	Maria Drout <i>Rapidly-Evolving and Luminous Transients from Pan-STARRS1</i> (12 min presentation & 3 min Q&A)
11:15am - 11:30am	Io Kleiser <i>Rapidly Fading Supernovae from Massive Star Explosions</i> (12 min presentation & 3 min Q&A)

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11:30am – 11:45am	Alexandra Kozyreva <i>Observational properties of low-redshift pair instability supernovae</i> (12 min presentation & 3 min Q&A)
11:45am -12:00pm	Andy Howell <i>Superluminous supernovae from SNLS</i> (12 min presentation & 3 min Q&A)
12:00pm -12:15pm	Iair Arcavi <i>Transients in the SN - SLSN Gap</i> (12 min presentation & 3 min Q&A)
<b>12:15pm – 2:00pm</b>	<b>Lunch</b> <b>Charlies Restaurant</b>
2:15pm	<b>Free Afternoon</b> Social Program – optional activities: Muttonbird Island Tour (Cost TBC) Big Banana (\$15/person) Golf (\$27/person) Coffs CBD Visit
	<b>Dinner</b> <i>Own Choice</i> <i>A bus will take delegates into Coffs Harbour</i> <i>(depart 6:00pm and return 9:00pm)</i>

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**THURSDAY 14 AUGUST 2014**

Time	Item
6:30am	<i>Optional Activity</i> Early Morning Beach Walk
7:00am	<b>Breakfast</b> Charlie's Restaurant
8:55am – 9:00am	<b>Announcements</b>
<b>Session X: Type Ia Supernovae and Their Progenitors</b> <b>Session Chair: Ken'ichi Nomoto</b>	
9:00am – 9:30am	Fritz Roepke (invited talk) <i>Type Ia supernova models compared to local events</i> (25 min presentation & 5 min Q&A)
9:30am – 10:00am	Ashley Rüter (invited talk) <i>White Dwarf Binaries and Type Ia Progenitors</i> (25 min presentation & 5 min Q&A)
10:00am – 10:15am	Ken Shen <i>Double detonation Type Ia supernovae from double white dwarf progenitors</i> (12 min presentation & 3 min Q&A)
10:15am – 10:30am	John Hillier <i>Time-dependent Radiative Transfer Modelling of Supernovae Spectra</i> (12 min presentation & 3 min Q&A)
<b>10:30am – 11:00am</b>	<b>Morning Tea</b> <b>Island Courtyard</b>
<b>Session XI: Type Ia Supernovae and Their Progenitors (continued)</b> <b>Session Chair: Noam Soker</b>	
11:00am – 11:15am	Marten van Kerkwijk <i>Normal type Ia supernovae from white dwarf mergers</i> (12 min presentation & 3 min Q&A)
11:15am – 11:30am	Richard Scalzo <i>The Range of Ejected Masses in Type Ia Supernovae</i> (12 min presentation & 3 min Q&A)
11:30am – 11:45am	Kate Maguire <i>Searching for progenitor signatures in Type Ia supernova spectra</i> (12 min presentation & 3 min Q&A)

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11:45am - 12:00pm	Michael Childress <i>SN 2012fr and High-Velocity Features in Type Ia Supernovae</i> (12 min presentation & 3 min Q&A)
12:00pm - 12:15pm	Ryan Foley <i>Extensive Multi-wavelength Observations of SN 2014J in M82 Indicate Reddening and Circumstellar Scattering by Typical Dust</i> (12 min presentation & 3 min Q&A)
12:15pm - 12:30pm	Curtis McCully <i>The Progenitor System of the Type Ia SN 2012Z</i> (12 min presentation & 3 min Q&A)
<b>12:30pm – 2:00pm</b>	<b>Lunch</b> <b>Charlies Restaurant</b>
<b>Session XII: Supernova Remnants and Historical Supernovae</b> <b>Session Chair: Margarita Rosado</b>	
2:00pm – 2:30pm	Carles Badenes (invited talk) <i>The Physics of Young Supernova Remnants</i> (25 min presentation & 5 min Q&A)
2:30pm – 2:45pm	You-Hua Chu <i>Type Ia Supernova Remnants in the Large Magellanic Cloud</i> (12 min presentation & 3 min Q&A)
2:45pm – 3:00pm	Wolfgang Kerzendorf <i>Companions of Supernovae</i> (12 min presentation & 3 min Q&A)
3:00pm – 3:15pm	Brian Williams <i>Spitzer Observations of the Type Ia Supernova Remnant N103B: A Type Ia with CSM Interaction?</i> (12 min presentation & 3 min Q&A)
3:15pm – 3:30pm	Kazimierz Borkowski <i>Non-uniform Expansion of the Youngest Galactic Supernova Remnant G1.9+0.3</i> (12 min presentation & 3 min Q&A)
<b>3:30pm – 4:00pm</b>	<b>Afternoon Tea</b> <b>Island Courtyard</b>

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<b>Session XIII: Supernova Remnants and Historical Supernovae (continued)</b> <b>Session Chair: Alceste Bonanos</b>	
4:00pm – 4:30pm	Armin Rest (invited talk) <i>An Astronomical Time Machine: Light Echoes from Historic Supernovae and Stellar Eruptions</i> (25 min presentation & 5 min Q&A)
4:30pm – 5:00pm	Haley Gomez (invited talk) <i>Dust in Young Supernova Remnants</i> (25 min presentation & 5 min Q&A)
5:00pm – 5:15pm	Tea Temim <i>Supernovae as drivers of dust evolution in the Magellanic Clouds</i> (12 min presentation & 3 min Q&A)
<b>6:30pm</b>	<b>Conference Dinner</b> <b>Marine Harbour Room</b> Dinner Speaker - Brian Schmidt

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**FRIDAY 15 AUGUST 2014**

Time	Item
7:30am	<i>Optional Activity</i> Pilates
7:00am	<b>Breakfast</b> <i>Charlie's Restaurant</i>
9:40am – 9:45am	<b>Announcements</b>
<b>Session XIV: 10,000 Days of Supernova 1987A; 23,741 Days of Bob</b> <b>Session Chair: You-Hua Chu</b>	
9:45am – 10:05am	Robert Kirshner (invited talk) <i>Hot Spots and Shock Stops in SN 1987A</i> (20min presentation)
10:05am – 10:45am	Supernova 1987A Panel Session chaired by Robert Kirshner (40 min general discussion and Q&A)
<b>10:45am-11:15am</b>	<b>Morning Tea</b> <b>Island Courtyard</b>
<b>Session XV: Future Instruments and Techniques</b> <b>Session Chair: TBC</b>	
11:15am – 11:35am	Bernhard Mueller (invited talk) <i>Neutrinos and Gravitational Waves - What will we learn from a Galactic Supernova?</i> (17 min presentation & 3 min Q&A)
11:35am – 11:55am	Kate Scholberg (invited talk) <i>Neutrinos from Supernovae: what the Next Burst will Bring</i> (17 min presentation & 3 min Q&A)
11:55am - 12:15pm	Tara Murphy (invited talk) <i>Explosive Variables and Transients with MWA, ASKAP and SKA</i> (17 min presentation & 3 min Q&A)
<b>12:15pm – 1:45pm</b>	<b>Lunch</b> <b>Charlies Restaurant</b>

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Session XVI: Future Instruments and Techniques (continued) Session Chair: TBC	
1:45pm – 2:05pm	George Sonneborn (invited talk) <i>Nearby Supernovae and the James Webb Space Telescope</i> (17 min presentation & 3 min Q&A)
2:05pm – 2:20pm	Russell Cannon <i>The next 1987A</i> (12 min presentation & 3 min Q&A)
2:20pm – 2:50pm	Conference Summary Emily Levesque and Stuart Sim (30 mins)
<b>2:50pm</b>	<b>CLOSE</b>