

The Ephemeral Universe with Widefield Low Frequency Arrays

DRAFT Program – Version 2

Dates: 12-14 November 2013

Venue: The Curtin Institute of Radio Astronomy, 1 Turner Avenue, Technology Park,
Bentley WA

Webpage: <http://www.caaastro.org/event/2013-transients>

Invited talks are 25+5 mins and contributed talks are 15+5 mins

Tuesday 12 November 2013

8:30am – 9:00am: Registration

Welcome		
9:00am – 9:05am		Welcome
Session 1: Setting the Scene – what science does the high time resolution world offer? Chair: Jean-Pierre Macquart		
9:15am – 9:45am	Peter Hall	Introduction and Workshop Imperatives (invited)
9:45am – 10:15am	Ron Ekers	Setting the Science Scene (invited)
Coffee Break: 10:15am – 10:45am		
Session 2: Mechanisms (I) Chair: Jean-Pierre Macquart		
10:45am – 11:15am	Don Melrose	Coherent Emission in Astrophysical Plasmas (Invited)
11:15am – 11:45am	Lingqing Wen	Real-Time Detection of Binary Coalescence and its Electromagnetic Follow-up Observations (Invited)
11:45am – 12:05pm	Wojciech Lewandowski	The consequences of the existence of Gigahertz Peaked Spectra pulsars in low frequency observations.
Lunch break: 12:05pm – 1:05pm		
Session 3: Mechanisms (II) Chair: Steve Ord		
1:05pm – 1:25pm	Ron Ekers	High Energy Particles (Invited)
1:25pm-1:35pm	Don Melrose	Interpretation of cosmic ray radio emission
1:35pm – 2:05pm	Michael Johnson	Scintillation (Invited)
2:05pm – 2:25pm	Mark Walker	Sgr A* eats G2 – implications for scintillations
2:25pm – 2:45pm	Artem Tuntsov	Strongly anisotropic scintillations from the dusty ISM?
Coffee Break: 2:45pm – 3:15pm		
Session 4: FRBs and Pulsars (I) Chair: Steve Ord		
3:15pm – 3:45pm	Matthew Bailes	FRBs, and recent work with MOST (Invited)
3:45pm – 4:05pm	Evan Keane	Detecting highly-dispersed bursts with next-generation radio telescopes
4:05pm – 4:25pm	Keith Bannister	A population model of fast radio bursts
4:25pm – 4:45pm	Simon Johnston	An update on FRB detections from the HTRU survey
4:45pm – 5:15pm	Emily Petroff	Searching for Fast Radio Bursts at intermediate latitudes (invited)
Close – drinks and nibbles @ the Brodie Hall building		

Wednesday 13 November 2013

Session 5: FRBs and Pulsars (II)

Chair: Ramesh Bhat

9:00am – 9:30am	Jason Hessels	Pulsars and Fast Transients with LOFAR (Invited)
9:30am – 10:00am	Scott Ransom	The all-sky GBT 350 MHz pulsar surveys (Invited)
10:00am – 10:20am	Ewan Barr	Accelerated acceleration searching and the GPU revolution
10:20am – 10:40am	Paul Ray	Observations of Pulsars with the Long Wavelength Array

Coffee Break: 10:40am – 11:00am

Session 6 Current Experiments (I)

Chair: Ramesh Bhat

11:00am – 11:30am	Tara Murphy	Exploring the transient radio sky with ASKAP and the MWA (Invited)
11:30am – 11:50am	Wes Armour	GPU based real-time signal detection for radio transients using ARTEMIS
11:50am – 12:10pm	Nadia Kudryavtseva	Slow transients with the MWA
12:10pm – 12:30pm	Nathan Clarke	Tardis-MWA -- A fast transients detection system for the MWA

Lunch break: 12:30pm – 1:30pm

Session 7: SKA

Chair: Carole Jackson

1:30pm – 2:00pm	Robert Braun	The Design and Science Performance of SKA-Low (Invited)
2:00pm – 2:30pm	Andy Faulkner	SKA Low Frequency Aperture Array Design (Invited)
2:30pm – 2:50pm	Cath Trott	Prospects for detection of FRBs with the MWA and SKA
2:50pm – 3:10pm	Jean-Pierre Macquart	Transients detection rates and instrument design

Coffee Break: 3:10pm – 3:30pm

Session 8: Discussion: SKA-low – design for time-domain science

Chair: Carole Jackson

3:30pm – 3:50pm	Talk on behalf of Laura Spitler	FRB searches with Arecibo
3:50pm – 4:10pm	Talk on behalf of Rob Fender	The perspective from the transients SWG
4:10pm – 4:40pm	Ilse van Bemmelen	More science with SKA-low (Invited)
4:40pm – 5:30pm	Discussion (chair: Carole Jackson)	Towards SKA- time domain and transients drivers

Close

Thursday 14 November 2013

Session 9: Current Experiments (II)

Chair: Steven Tremblay

9:15am – 9:35am	Randall Wayth	The V-FASTR fast transients project
9:35am – 9:55am	Gemma Anderson	GRB Follow-up with the Arcminute Microkelvin Imager (AMI)
9:55am – 10:15am	Ramesh Bhat	High-time resolution, simultaneous pulsar observations with the MWA and Parkes
10:15am – 10:30am	Steve Ord	Current and future data capture and offline processing possibilities with the MWA; how, when and why?

Coffee Break: 10:30am – 11:00am

Session 10: Conference summary

Chair:

11:00am – 11:30am	Discussion	The origin of FRBs and breaking results
11:30am – 12:00 noon	Wrap up discussion including Robert Braun	

Close – 12:00 noon