

IAU Symposium 291 - Programme

Monday 20 August:

Welcome: Dick Manchester (on behalf of SOC)

10:35 – 12:30, Session 1: Pulsar Discovery I (Chair: Michael Kramer)

Michael Keith – The HTRU surveys for pulsars & fast transients (Invited, 20m)
Patrick Lazarus – The PALFA Survey: Going to great depths to find radio pulsars (Invited, 20m)
Ryan Lynch – The hunt for new pulsars with the Green Bank Telescope (Invited, 20m)
Ben Stappers – New results from LOFAR (Invited, 20m)
Cherry Ng - Conducting the deepest all-sky pulsar survey ever: The All-Sky High Time Resolution Universe Survey (15m)
Andrew Siemion - A search for pulsars in the central parsecs of the Galactic Center (15m)

14:00 – 15:30, Session 2: Pulsar Genesis – Neutron-star formation and birth properties (Chair: Renxin Xu)

Feryal Ozel – Neutron star structure: What we learn from their masses and radii (Invited, 20m)
Fridolin Weber – Structure of quark stars (Invited, 20m)
Kohsuke Sumiyoshi – Numerical modeling of core-collapse supernovae and compact objects (Invited, 20m)
Nicolas Chamel - Superfluidity and entrainment in neutron-star crusts (15m)

16:00 – 18:00, Session 3: Pulsar discovery II and Poster Session (Chair: Scott Ransom)

Pablo Saz Parkinson – Fermi LAT Searches for gamma-ray pulsars (Invited, 20m)
Lucas Guillemot – Radio counterparts of gamma-ray pulsars (Invited, 20m)
Poster Presentations: 1-minute/1-slide per poster

Tuesday 21 August:

10:30 – 12:30, Session 4: Pulsar diversity (Chair: Joeri van Leeuwen)

Sarah Burke-Spolaor – Rotating radio transients and their place among pulsars (Invited, 20m)
George Pavlov – X-ray properties of rotation-powered pulsars and thermally emitting neutron stars (Invited, 20m)
Wynn Ho – Central Compact Objects and their magnetic fields (Invited, 20m)
Simone Dall'Osso - The decaying magnetic field of magnetars: evidence and inference (15m)
Chen Karako - Discoveries of Rotating Radio Transients in the 350 MHz Green Bank Telescope Drift-scan Survey (15m)
Andrea Belfiore - The first radio-quiet millisecond pulsar? (15m)

Eduardo Rubio-Herrera - Single Pulses from Nearby Galaxies (15m)

Wednesday 22 August:

10:30 – 12:30, Session 5: Binary pulsars (Chair: Silvia Zane)

Andrea Possenti – Binary pulsar evolution: unveiled links and new species (Invited, 20m)

Mallory Roberts – Surrounded by spiders: The newly discovered population of eclipsing binary millisecond pulsars (Invited, 20m)

David Nice – Neutron-star masses (Invited, 20m)

Lennart van Haften - Formation of the planet around the millisecond pulsar J1719-1438 (15m)

Thomas Tauris - Recycling pulsars: spins, masses and ages (15m)

Juri Poutanen - Constraining neutron star EoS from cooling stages of X-ray bursts (15m)

Nathalie Degenaar - Peeking into the crust of an accreting neutron star (15m)

14:00 – 15:30, Session 6: Neutron star vibration and emission (Chair: Shinpei Shibata)

Nils Andersson – Neutron-star seismology (Invited, 20m)

Silvia Zane – Magnetar X-ray emission mechanisms (Invited, 20m)

Dong Lai – X-ray emission from neutron-star surfaces (Invited, 20m)

Caroline D'Angelo - Understanding magnetars through their flare emission (15m)

Aris Karastergiou - Long timescale radio emission variability and spin-down changes in PSR J0738-4042 (15m)

16:00 – 18:00, Session 7: Pulsar timing and testing gravitational theories (Chair: Jim Cordes)

George Hobbs – Pulsar Timing Arrays: Status and techniques (Invited, 20m)

Norbert Wex – Prospects for probing strong gravity with a pulsar-black hole system (Invited, 20m)

Ryan Shannon - Constraining the nanohertz gravitational wave background with the PPTA (15m)

Justin Ellis - Stochastic and continuous gravitational wave analysis pipelines for PTA data (15m)

Weiwei Zhu - 19 years of high precision timing of the millisecond pulsar J1713+0747 (15m)

Kuo Lui - Update on the European Pulsar Timing Array (15m)

Thursday 23 August:

08:30 – 10:00, Plenary Session (Chair: Dick Manchester)

Scott Ransom – Pulsars are cool – seriously (Invited 30m)

Nanda Rea – Magnetars: neutron stars with magnetic storms (Invited 30m)

Michael Kramer – Probing gravitation with pulsars (Invited 30m)

10:30 – 12:30, Session 8: Pulsar timing (Chair: David Nice)

Andrew Lyne – Magnetospheric regulation of pulsar slow-down (Invited, 20m)

Kejia Lee – Testing gravity theories In the radiative regime using pulsar timing arrays (Invited, 20m)
Sarah Buchner - Vela glitch monitoring from HartRAO (15m)
Cristobal Espinoza - The spin evolution of young pulsars (15m)
Augustine Chukwude - On the peculiarities in the spin-down of isolated radio pulsars (15m)
Gregory Desvignes - Measurement of relativistic spin precession in the young binary pulsar J1906+0746 (15m)
Wei Wang - The superslow-pulsation X-ray pulsars in high-mass X-ray binaries (15m)

14:00 – 15:30, Session 9: Pulsars and the interstellar medium (Chair: Duncan Lorimer)

Jim Cordes – Galactic structure and turbulence from pulsar observations: Results and implications (Invited, 20m)
Jean-Pierre Macquart – Interstellar scattering (Invited, 20m)
Jinlin Han – Galactic magnetic fields derived from pulsar rotation measures (Invited, 20m)
Thijs Coenen - LOFAR commissioning pulsar surveys (15m)
Heino Falcke - FRATs: Searching for fast radio transients in real-time with LOFAR (15m)

16:00 – 18:00, Session 10: Galactic distribution and evolution of neutron stars (Chair: Vicky Kaspi)

Duncan Lorimer – The Galactic neutron-star population (Invited, 20m)
Paulo Freire – The pulsar population in globular clusters: differences and similarities to the pulsar population in the Galaxy (Invited, 20m)
Samar Safi-Harb – Pulsar wind nebulae (Invited, 20m)
Shami Chatterjee - Science with radio pulsar astrometry (15m)
Jayanth Chennamangalam - Constraining the luminosity function parameters and population size of pulsars in globular clusters (15m)
Ascensión Camero - A magnetic powered nebula around RRAT J1819-1458? (15m)
Xiaping Tang - Particle transport in young pulsar wind nebula (15m)

Friday 24 August:

08:30 – 10:00, Session 11: Pulsar magnetosphere and emission mechanisms (Chair: Jinlin Han)

Anatoly Spitkovsky – Modelling of pulsar magnetospheres (Invited, 20m)
Andrey Timokhin – The complex charm of the pulsar magnetosphere (Invited, 20m)
Shinpei Shibata - The structure of the pulsar magnetosphere via particle simulation with GRAPE (15m)
Don Melrose - Pulsar Electrodynamics Revisited (15m)
Jason Li - Resistivity and dissipation in pulsar magnetospheres (15m)

10:30 – 12:30, Session 12: Emission mechanisms (Chair: Dong Lai)

Evan Keane – Radio emission properties: Nulling, mode changing and drifting (Invited,

20m)

Jarek Dyks – Radio pulse emission mechanisms: directional patterns (Invited, 20m)

Matthew Kerr – Gamma-ray emission mechanisms (Invited, 20m)

Joeri van Leeuwen - "An X-Raydio Switcheroo" - Detection of correlated mode changes in radio and X-ray (15m)

Marta Dembska - PSR B1259-63 spectrum evolution and classification of pulsar spectra (15m)

Vladislav Kondratiev - Pulsar Emission at the Bottom-End of the Electromagnetic Spectrum (15m)

Walid Majid - A multi-wavelength campaign to study giant pulses from the Crab pulsar (15m)

14:00 – 15:30, Session 13: Future facilities (Chair: Na Wang)

Simon Johnston – SKA pathfinders (Invited, 20m)

Di Li - The promise of a giant radio telescope (Invited, 20m)

Vicky Kaspi – The NuSTAR X-ray telescope (Invited, 20m)

Russ Taylor – The Square Kilometre Array (Invited, 20m)

16:00 – 17:00, Session 14: Forum Discussion

“Future Facilities, Future Discoveries and Big Questions”

Introduced and moderated by Jim Cordes, Vicky Kaspi and Dong Lai (60m)

Meeting Summary (Chair: Renxin Xu)

Jocelyn Bell-Burnell