

## Wednesday 22nd November

09:00

**Arrival, registration for SPINS-UK attendees**

09:20

09:40

**Short welcome**

*Lucy Oswald (University of Oxford)*

10:00

Paper 1: The dataset and timing analysis

*Jiwoong Jang*

10:10

Paper 2: Customised pulsar noise models for spatially correlated gravitational waves

*Aurélien Chalumeau*

10:20

**The EPTA data  
release:  
brief overviews of the  
papers followed by  
guided discussion**

Paper 3: Search for gravitational wave signals

*Yanjun Guo*

10:30

Paper 4: Search for continuous gravitational wave signals

*Mikel Falxa*

10:40

**Chair: Hannah  
Middleton**

Paper 5: Implications for massive black holes, dark matter and the early Universe

*Nataliya Porayko*

10:50

Paper 6: Challenging the ultralight dark matter paradigm

*Clemente Smarra*

11:00

Q&A and general discussion

11:20

**Coffee break**

11:40

Testing strengths, limitations and biases of current PTA detection analyses on realistic data

*Serena Valtollina*

12:00

**PTAs and beyond**

A Gamma-ray Pulsar Timing Array

*Aditya Parthasarathy*

12:20

**Chair: Paul Brook**

What could pulsar timing array results mean for LISA?

*Hannah Middleton*

12:40

13:00

**Lunch**

13:20

13:40

14:00

The SKA is being built. Make sure you are aware what it can do for you!

*Aris Karastergiou (University of Oxford)*

14:20

**Looking to the future**

14:40

**Chair: Dr Benjamin  
Shaw**

**Discussion session**

Observer requirements for the SKA and items to bring to the next SKA Town Hall

15:00

15:30

**Coffee break**

16:00

**Multimessenger  
signatures of the  
neutron star crust  
Chair: Dr Fabian  
Gittins**

Elastic mountains on a spinning neutron star

*Yashaswi Gangwar (University of Southampton)*

16:20

Nuclear physics from interpreting SGRB precursor flares as signatures of resonant shattering

*Duncan Neill (University of Bath)*

16:40

Gravitational radiation and the formation of "thermo-elastic" neutron star mountains

*Thomas Hutchins (University of Southampton)*

17:00

**End of day**

19:30

**CONFERENCE DINNER**

## Thursday 23rd November

|       |   |   |
|-------|---|---|
| 09:40 | <b>Arrival</b>  |   |
| 10:00 | <b>Techniques and Simulations</b><br><i>Chair: Dr Amy Knight</i>  | Testing the gravito-magnetic clock effect in pulsar binaries<br><i>Kaye Jiale Li (MSSL/UCL)</i>   |
| 10:20 |   | Using bowties to catch radio emitting transients<br><i>Sergio Belmonte Diaz (JBCA)</i>  |
| 10:40 |   | Improving pulsar-timing solutions through dynamic pulse fitting<br><i>Gregory Ashton (RHUL)</i>   |
| 11:00 |   | Tracing the orbital evolution of binaries within the Milky Way<br><i>Soheb Mandhai (University of Manchester)</i>   |
| 11:20 |   | Simulation-based inference for pulsar population synthesis<br><i>Vanessa Graber (ICE-CSIC)</i>  |
| 11:40 | <b>Coffee break</b>   |   |
| 12:00 | <b>Binary evolution I: Spiders</b><br><i>Chair: Dr Soheb Mandhai</i>  | Mass estimates from optical modelling of the new TRAPUM redback PSR J1910-5320<br><i>Oliver Dodge (University of Manchester)</i>  |
| 12:20 |   | Optical Associations of TRAPUM Pulsars and Radial Variations of the Redback, PSR J1803-6707<br><i>Adipol Phosrisom (University of Manchester)</i>   |
| 12:40 |   | Probing the Evolutionary Connection between False Widows and Spider Pulsars<br><i>Amy Knight (University of Durham)</i>   |
| 13:00 | <b>Lunch</b>  |   |
| 13:20 |   |   |
| 13:40 |   |   |
| 14:00 | <b>Neutron star interiors: oscillations and magnetothermal evolution</b><br><i>Chair: Dr Vanessa Graber</i> | Evolution of off-centred dipole magnetic fields in neutron stars<br><i>Andrei Igoshev (University of Leeds)</i>   |
| 14:20 |   | Magneto-thermal evolution in the cores of adolescent neutron stars<br><i>Nicolas Moraga (Universidad de Chile)</i>  |
| 14:40 |   | Unveiling the nature of NS cores: Bayesian inference of nucleonic parameters for a variety of exotic core models<br><i>Jack Tweddle (University of Bath)</i>  |
| 15:00 |   | Ocean waves on neutron stars<br><i>Fabian Gittins (University of Southampton)</i>   |
| 15:20 | <b>Coffee break</b>   |   |
| 15:40 | <b>The UK funding landscape: summary and future plans</b>   | Brief overview talks:<br><i>The STFC Large Award (Ian Jones, University of Southampton)</i>   |
| 16:00 |   | <i>The STFC Small Award (Silvia Zane, MSSL/UCL)</i><br><i>Funding for meetings and networks (Lucy Oswald, University of Oxford)</i><br><i>Funding for infrastructure (Ben Stappers, University of Manchester)</i> |
| 16:20 |   |   |
| 16:40 |   | Discussion  |
| 17:00 | <b>End of day</b>   |   |

## Friday 24th November

|       |   |  |
|-------|---|--|
| 09:40 | <b>Arrival</b>  |  |
| 10:00 | <b>Searches and Surveys</b><br><i>Chair: Dr Lauren Rhodes</i>   | A mob of MeerKAT FRBs and Galactic transients found with MeerTRAP<br><i>Ben Stappers (University of Manchester)</i>  |
| 10:20 |   | A targeted survey of redback candidates with MeerKAT<br><i>Tinn Thongmeearkom (University of Manchester)</i>   |
| 10:40 |   | A study of 70 neutron stars in X-ray binaries in the Small Magellanic Cloud<br><i>Malcolm Coe (University of Southampton) (online)</i>                       |
| 11:00 |   | Searching for Pulsars in Supernova remnants, Pulsar wind nebulae and unidentified TeV sources with MeerKAT<br><i>James Turner (University of Manchester)</i> |
| 11:20 |   | Exploring the nature of Fast Radio Bursts through MeerKAT's lens<br><i>Inés Pastor-Marazuela (University of Manchester)</i>                                  |
| 11:40 | <b>Coffee break</b>   |  |
| 12:00 | <b>Magnetospheres I: Magnetic fields and NS atmospheres</b><br><i>Chair: Dr Xiaoxi Song</i>               | Over- and under-estimating neutron-star magnetic fields<br><i>Sam Lander (UEA)</i>   |
| 12:20 |   | Multiwavelength Pulsations and Temperature Distribution in the Middle-Aged Pulsar B1055-52<br><i>Armin Vahdat Motlagh (University of Tübingen) (online)</i>  |
| 12:40 |   | X-ray Polarisation in Magnetar Atmospheres - Mode Conversion<br><i>Ruth Kelly (MSSL/UCL)</i>   |
| 13:00 | <b>Lunch</b>  |  |
| 13:20 |   |  |
| 13:40 |   |  |
| 14:00 | <b>Magnetospheres II: Radio pulse profiles and single pulses</b><br><i>Chair: Dr Duncan Neill</i>         | The highly unusual pulsar emission of PSR J1514-4834: flickering revealed by MeerKAT<br><i>Jui-An (Ray) Hsu (University of Manchester)</i>                   |
| 14:20 |   | The Evolution of Nulling Pulsars<br><i>Paul Brook (University of Birmingham) (online)</i>  |
| 14:40 |   | Sub-Pulse Bi-drifting of TPA Pulsars and Emission Geometry of Radio Pulsars<br><i>Haoyue Wang (University of Manchester)</i>                                 |
| 15:00 |   | Long term profile evolution in 7 young pulsars<br><i>Avishek Basu (University of Manchester)</i>   |
| 15:20 | <b>Coffee break</b>   |  |
| 15:40 | <b>Binary evolution II: Across the electromagnetic spectrum</b><br><i>Chair: Dr Inés Pastor Marazuela</i> | PSR J2108+4516: A pulsar in a rare binary orbit with a main sequence star<br><i>Georgia Lowes (University of Hull)</i>                                       |
| 16:00 |   | Highs and lows of the tMSP PSR J1023+0038<br><i>Pengyue Sun (University of Manchester)</i>   |
| 16:20 |   | The only known eclipsing AMXP (SWIFT J1749.4-2807) and its Type-I X-ray bursts<br><i>Arianna Albayati (University of Southampton)</i>                        |
| 16:40 | <b>Closing remarks</b><br><i>Lucy Oswald (University of Oxford)</i>                                       |  |
| 17:00 | <b>End of day</b>   |  |
| 18:00 | <b>PUBLIC TALK:</b><br><b>JOCELYN BELL BURNELL</b>  |  |