

**Session Program**

**23 May 2023**

**UK Cosmo at Cambridge**

***Scientific Talks***

# Tuesday 23 May

10:00

## Scientific Talks: Morning 1

**Session** |

**Location:** Department of Applied Mathematics and Theoretical Physics, Wilberforce Road, Cambridge CB3 0WA

10:00–10:15

**Dark Energy (and modified gravity) in two body problem: theoretical implications and observational constraints**

10:15–10:30

**Radiation from Axion Strings with Adaptive Mesh Refinement**

10:30–10:45

**Growth of structure in regularised 4D Einstein-Gauss-Bonnet**

10:45

11:45

## Scientific Talks: Morning 2

**Session** |

**Location:** Department of Applied Mathematics and Theoretical Physics, Wilberforce Road, Cambridge CB3 0WA

11:45–12:00

**Cosmology and strong gravity with a subdominant scalar field**

12:00–12:15

**The cosmological constant is probably still zero**

12:15–12:30

**Clockwork Cosmology**

12:30–12:45

**How to find the Feynman Rules from any scalar-tensor theory and not collapse in the process**

12:45

13:45

## Scientific Talks: Afternoon 1

**Session** |

**Location:** Department of Applied Mathematics and Theoretical Physics, Wilberforce Road, Cambridge CB3 0WA

13:45–14:00

**Spinning primordial black holes in a matter dominated universe**

14:00–14:15

**Can primordial black holes form without fine-tuning?**

14:15–14:30

**Primordial black holes and stochastic inflation beyond slow roll**

14:30–14:45

**Multi-field inflation with large scalar fluctuations: non-Gaussianity and perturbativity**

14:45–15:00

**Quantum field theory in curved spacetime and the CMB hemispherical power asymmetry**

15:00–15:15

**Unimodular Hartle-Hawking wave packets and their probability interpretation**

15:30

15:15-15:30

**Impact of a quantum gravity bounce on cosmological perturbations**

16:00

**Scientific Talks: Afternoon 2****Session |****Location:** Department of Applied Mathematics and Theoretical Physics, Wilberforce Road, Cambridge CB3 0WA

16:00-16:15

**New Insight on Neutrino Dark Matter Interactions from Small-Scale CMB Observations**

16:15-16:30

**Modelling of Astrophysical Systematics for Cosmology with LSST**

16:30-16:45

**The Wide-Angle Power Spectrum**

16:45-17:00

**The observed number counts in luminosity distance space**

17:00-17:15

**The angular power spectrum of gravitational-wave transient sources as a probe of the large-scale structure**

17:15-17:30

**Dictionary Learning: A Novel Approach to Detecting Binary Black Holes in the Presence of Galactic Noise with LISA**

17:30