

Session Program

12-16 Jan 2026



IAS Program on Fundamental Physics (FP 2026)

Conference: Parallel sessions (Astronomy & Dark Matters/Gravity)

Monday 12 January

16:10

Conference: Parallel sessions (Astronomy & Dark Matters/Gravity): M-ADMG02: Astronomy & Dark Matters I

Session | Location: IASLT, G/F | Convener: Xiaoyong CHU

16:10-16:30 **Detecting Dark-Matter in Space - The Alpha Magnetic Spectrometer**

Speaker

Hong-Hao ZHANG

16:30-16:50

[Online via Zoom] Polarization-Pulse Structure of Neutron Star X-ray Signals from Dark Sector Physics

Speaker

Lingfeng LI

16:50-17:10

First Constraint on the Dimensionless Axion-Photon Coupling from Neutron Star Observations

Speaker

Jun-Chen WANG

17:10-17:30 **Probing Dark Matter with High-redshift Hydrogen**

Speaker

Tao XU

17:50

Tuesday 13 January

16:10

Conference: Parallel sessions (Astronomy & Dark Matters/Gravity): Tu-ADMG02: Astronomy & Dark Matters II

Session | Location: IAS2042, 2/F | Convener: Yiming ZHONG

16:10-16:30 **Mapping the nature of dark matter with extremely magnified stars**

Speaker

Sung Kei LI

16:30-16:50

Measurements of Cosmic Proton Flux through Neutron Monitors Using Deep Networks and Imputation Techniques in the AMS-02 Era

Speaker

Pengwei ZHAO

16:50-17:10

Probing Ultra Dense Substructures with Gravitational Lensing of Fast Radio Bursts

Speaker

Yuxuan HE

17:10-17:30

Probing the nature of dark matter using strongly lensed gravitational waves from binary black holes

Speaker

Souvik JANA

17:50

Thursday 15 January

16:10

Conference: Parallel sessions (Astronomy & Dark Matters/Gravity): Th-ADMG02: Gravity & Field Theory

Session | Location: IAS2042, 2/F | Convener: Kin-Wang NG

16:10-16:30

Towards Quantum Gravity as the Theory of General Quantum Relativity or Q-number Geometrodynamics

Speaker

Kong OTTO

16:30-16:50 **Modified Theories of Gravity, Parity, and the Dark Sector**

Speaker

Tatsuya DANIEL

16:50-17:10

Interact or Twist: Cosmological Correlators from Field Redefinitions Revisited

Speaker

Xiangwei WANG

17:10-17:30

Real-Time Simulation of Asymmetry Generation in Fermion-Bubble Collisions

Speaker

Ying-Ying LI

17:50