

The 2nd Sino-Europe Workshop on Lunar Gravitational Wave Detection

Report of Contributions

Contribution ID : **106**

Type : **not specified**

Lunar Gravitation Wave Antenna

Monday, 27 July 2026 09:10 (20)

Presenter(s) : HARMS, Jan (GSSI)

Session Classification : Session 1: Missions

Contribution ID : **107**

Type : **not specified**

CIGO Progress 2026

Monday, 27 July 2026 09:30 (20)

Presenter(s) : ZHANG, Xiaomin (Beijing Ziwei Yutong Technology Co., Ltd.)

Session Classification : Session 1: Missions

Contribution ID : **108**

Type : **not specified**

Lunar Laser Ranging (LLR) with millimeter accuracy: Prospects

Monday, 27 July 2026 09:50 (20)

Presenter(s) : NI, Wei-Tou (Lanzhou University)

Session Classification : Session 1: Missions

Contribution ID : **109**

Type : **not specified**

**Thermal noise modeling of lunar gravitational-wave
detector suspensions based on
temperature-dependent dissipation dilution and
finite-element strain-energy partition**

Monday, 27 July 2026 10:10 (15)

Presenter(s) : LI, Qifan (Sun Yat-sen University)

Session Classification : Session 1: Missions

Contribution ID : **110**

Type : **not specified**

LANGO - a Mid-Frequency Tensor GW Observatory

Monday, 27 July 2026 10:50 (30)

Presenter(s) : PAIK, Ho Jung (Department of Physics, University of Maryland, USA)

Session Classification : Session 2: Instruments

Contribution ID : 111

Type : **not specified**

DONGA: Decihertz Omni-directional Network of Gravitational-wave Accelerometry

Monday, 27 July 2026 11:20 (10)

Presenter(s) : OH, John J. (NIMS)

Session Classification : Session 2: Instruments

Contribution ID : 112

Type : **not specified**

Recent Progress of Superconducting Weak-Force Sensing Technology at IMECH

Monday, 27 July 2026 11:30 (20)

Presenter(s) : BIAN, Xing (Institute of Mechanics, Chinese Academy of Sciences)

Session Classification : Session 2: Instruments

Contribution ID : 113

Type : **not specified**

Torsional-X seismometer for lunar decihertz gravitational-wave detection

Monday, 27 July 2026 11:50 (15)

Presenter(s) : XIA, Yulin (Tsinghua University)

Session Classification : Session 2: Instruments

Contribution ID : 114

Type : **not specified**

Challenges of gravitational wave detection on the Moon and preliminary solutions

Monday, 27 July 2026 14:00 (20)

Presenter(s) : ZHANG, Jinhai (Institute of Geology and Geophysics, Chinese Academy of Sciences)

Session Classification : Session 3: Lunar response

Contribution ID : 115

Type : **not specified**

Lunar Polar Environments: Recommendations for Moon-Based Gravitational Wave Observatories

Monday, 27 July 2026 14:20 (20)

Presenter(s) : FA, Wenzhe (Peking University)

Session Classification : Session 3: Lunar response

Contribution ID : 116

Type : **not specified**

Thick Lunar Crust Amplifies Deci-Hertz Gravitational-Wave Signal

Monday, 27 July 2026 14:40 (20)

Presenter(s) : ZHANG, Lei (Institute of Geology and Geophysics, Chinese Academy of Sciences)

Session Classification : Session 3: Lunar response

Contribution ID : 117

Type : **not specified**

Gravitational-wave tomography of the Moon: Constraining lunar structure with calibrated gravitational waves

Monday, 27 July 2026 15:00 (15)

Presenter(s) : YAN, Han (Department of Astronomy, Peking University)

Session Classification : Session 3: Lunar response

Contribution ID : **118**

Type : **not specified**

Impact of Lunar-Crust Amplification of GW-Induced Seismic Response on LGWA Source Detectability

Monday, 27 July 2026 15:15 (15)

Presenter(s) : DENG, Qiong (Institute of Mechanics, Chinese Academy of Sciences)

Session Classification : Session 3: Lunar response

Contribution ID : 119

Type : **not specified**

Mach-Zehnder Laser Interferometer System for Moon-Based Gravitational Wave Detection

Monday, 27 July 2026 16:00 (20)

Presenter(s) : WEI, Lianfu (Southwest Jiaotong University)

Session Classification : Session 4: Experiments

Contribution ID : **120**

Type : **not specified**

Laser stabilisation using hollow core fibre based interferometers

Monday, 27 July 2026 16:20 (20)

Presenter(s) : DING, Meng (Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences)

Session Classification : Session 4: Experiments

Contribution ID : **121**

Type : **not specified**

(Online) LGWA E-Box Requirements, Design and Legacy from the Insight E-Box

Monday, 27 July 2026 16:40 (20)

Presenter(s) : LUIGI, Ferraioli

Session Classification : Session 4: Experiments

Contribution ID : 122

Type : **not specified**

Toward Practical Magnetic Dipole Inversion: From High-Precision Recovery to Low-Observation Noise-Robust Localization

Monday, 27 July 2026 17:00 (15)

Presenter(s) : GAO, Junchen (School of Physical Science and Technology, Lanzhou University)

Session Classification : Session 4: Experiments

Contribution ID : 123

Type : **not specified**

Triadic resonance in a latitudinally-librating triaxial ellipsoidal fluid core

Tuesday, 28 July 2026 09:00 (20)

Presenter(s) : KONG, Dali (Shanghai Astronomical Observatory, Chinese Academy of Sciences)

Session Classification : Session 5: Lunar & astrophysics

Contribution ID : 124

Type : **not specified**

Breaking Decihertz Parameter Degeneracies with the Moon

Tuesday, 28 July 2026 09:20 (20)

Presenter(s) : AMARO-SEOANE, Pau (Polytechnic U. of Valencia)

Session Classification : Session 5: Lunar & astrophysics

Contribution ID : 125

Type : **not specified**

Probing ultralight dark matter on the ground, in space and on the moon with gravitational-wave detectors

Tuesday, 28 July 2026 09:40 (20)

Presenter(s) : MILLER, Andrew Lawrence (ICTP-AP/ UCAS)

Session Classification : Session 5: Lunar & astrophysics

Contribution ID : 126

Type : **not specified**

Cosmological perturbations and gravitational waves in the general Einstein-vector theory

Tuesday, 28 July 2026 10:00 (15)

Presenter(s) : LAI, Xiaobin (Lanzhou University)

Session Classification : Session 5: Lunar & astrophysics

Contribution ID : **127**

Type : **not specified**

Gravitational wave scattering by compact object

Tuesday, 28 July 2026 10:15 (15)

Presenter(s) : LI, Zhao (Peking University)

Session Classification : Session 5: Lunar & astrophysics

Contribution ID : **128**

Type : **not specified**

Probing Dark Matter with Laser Interferometers in Space

Tuesday, 28 July 2026 11:00 (20)

Presenter(s) : TANG, Yong (University of Chinese Academy of Sciences)

Session Classification : Session 6: Fundamental physics

Contribution ID : **129**

Type : **not specified**

Stimulated Emission from Boson Clouds

Tuesday, 28 July 2026 11:20 (20)

Presenter(s) : GE, Xianhui (Shanghai University)

Session Classification : Session 6: Fundamental physics

Contribution ID : **130**

Type : **not specified**

Black Hole Quasinormal Modes and New Compact Star Models

Tuesday, 28 July 2026 11:40 (20)

Presenter(s) : ZHANG, Hong (Shanghai University)

Session Classification : Session 6: Fundamental physics

Contribution ID : **131**

Type : **not specified**

Gravitational wave polarization modes and stability analysis in Weyl geometry gravity

Tuesday, 28 July 2026 12:00 (15)

Presenter(s) : FAN, Yuzhi (Lanzhou University)

Session Classification : Session 6: Fundamental physics

Contribution ID : 132

Type : **not specified**

GRBs, FXTs and FRBs are possible EM counterparts of 0.1 Hz GWs

Tuesday, 28 July 2026 14:00 (20)

Presenter(s) : ZHANG, Bing (University of Hong Kong)

Session Classification : Session 7: Multi-messenger and multi-band observations

Contribution ID : 133

Type : **not specified**

Probing the formation and evolution of supermassive black holes through multi-wavelength gravitational-wave observations

Tuesday, 28 July 2026 14:20 (20)

Presenter(s) : AJITH, Parameswaran (ICTS)

Session Classification : Session 7: Multi-messenger and multi-band observations

Contribution ID : 134

Type : **not specified**

Observing Electromagnetic response of GWs on the Moon

Tuesday, 28 July 2026 14:40 (20)

Presenter(s) : HAN, Wenbiao (Shanghai Astronomical Observatory, Chinese Academy of Sciences)

Session Classification : Session 7: Multi-messenger and multi-band observations

Contribution ID : 135

Type : **not specified**

Host Identification of Strongly Lensed BBH Events with Simulation-Based Inference

Tuesday, 28 July 2026 15:00 (15)

Presenter(s) : HE, Qiuhan (University of Groningen, Netherlands)

Session Classification : Session 7: Multi-messenger and multi-band observations

Contribution ID : 136

Type : **not specified**

One Merger, Three Bands: Multiband Observations of Stellar Binary Black Holes by LISA-LGWA-LVK

Tuesday, 28 July 2026 15:15 (15)

Presenter(s) : CHEN, An (University of Chinese Academy of Sciences)

Session Classification : Session 7: Multi-messenger and multi-band observations

Contribution ID : 137

Type : **not specified**

The new generation lunar gravitational wave detectors: sky map resolution and joint analysis

Tuesday, 28 July 2026 16:00 (20)

Presenter(s) : SUN, Sichun (Beijing Institute of Technology)

Session Classification : Session 8: GW data analysis

Contribution ID : **138**

Type : **not specified**

Near Real-time data analysis of massive black holes

Tuesday, 28 July 2026 16:20 (20)

Presenter(s) : HU, Yiming (Sun Yat-sen University)

Session Classification : Session 8: GW data analysis

Contribution ID : 139

Type : **not specified**

Detection Methods for the Chiral Gravitational Wave Background

Tuesday, 28 July 2026 16:40 (20)

Presenter(s) : ZHANG, Yunlong (National Astronomical Observatories, Chinese Academy of Sciences)

Session Classification : Session 8: GW data analysis

Contribution ID : **140**

Type : **not specified**

Constraining Black-Hole Dipole Radiation with Multiband Gravitational Waves from Eccentric Binary Black Holes

Tuesday, 28 July 2026 17:00 (15)

Presenter(s) : WANG, Han (Peking University)

Session Classification : Session 8: GW data analysis

Contribution ID : **141**

Type : **not specified**

Opening remark by Prof. Ziren Luo

Monday, 27 July 2026 09:00 (10)

Opening ceremony

Presenter(s) : LUO, Ziren (Institute of Mechanics, Chinese Academy of Sciences)

Contribution ID : **142**

Type : **not specified**

Closing remarks

Tuesday, 28 July 2026 17:15 (15)

Session Classification : Session 8: GW data analysis

Contribution ID : 143

Type : **not specified**

[*POSTER*] Response of the Moon to an anisotropic stochastic gravitational wave background

Monday, 27 July 2026 15:35 (10)

Presenter(s) : ZHANG, Baocheng (China University of Geosciences (Wuhan))

Session Classification : Coffee Break & Poster Viewing

Contribution ID : 144

Type : **not specified**

[*POSTER*] Improving the Dynamic Resolution of Micro-force through Vibration Isolation

Monday, 27 July 2026 15:45 (10)

Presenter(s) : CONG, Linxiao (University of Chinese Academy of Sciences)

Session Classification : Coffee Break & Poster Viewing