



ICTS

INTERNATIONAL
CENTRE for
THEORETICAL
SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

DISCUSSION MEETING

Lunar Gravitational-Wave Detection

Lunar exploration has become a strategic objective of space agencies worldwide. These programs offer extraordinary opportunities for science as well. Gravitational-wave (GW) detection on the Moon already emerged as a revolutionary idea during the Apollo era. Today, technologies exist to realise a GW detector on the Moon. Lunar detectors would have the capability to open the decihertz band to GW observations with enormous opportunities for breakthrough GW and multi-messenger observations. The goal of this meeting is to discuss mission concepts for lunar GW detection, payload technologies, GW science, as well as lunar geophysics, which plays a crucial role in the planning of these missions. This meeting also will include scientists who are working on other mission concepts for decihertz GW detection to facilitate a meaningful exchange of ideas and techniques. Another aim of this meeting is to help to step up the Indian presence in the international efforts to prepare a science white paper on decihertz GW astronomy.

Eligibility criteria Researchers (including PhD students) working on gravitational-wave astronomy, space physics & technology, planetary science, and related areas.

ICTS is committed to building an environment that is inclusive, non discriminatory and welcoming of diverse individuals. We especially encourage the participation of women and other under-represented groups.

17 — 20 April 2023
ICTS-TIFR Bengaluru

SPEAKERS

Amitabh (SAC/ISRO)
Dai Asoh (JAXA)
Varun Bhalerao (IIT Bombay)
Satadru Bhattacharya (SAC/ISRO)
Sriram Saran Bhiravarasu (SAC/ISRO)
Xing Bian (CAS) [remote]
Alexey Bobrick (Technion Institute)
Luigi Cacciapuoti (ESA) [remote]
Enrico Cappellaro (INAF - Osservatorio Astronomico di Padova)
Tirtha Pratim Das (ISRO)
Philippe Gläser (TU Berlin)
Na'ama Hallakoun (Weizmann Institute) [remote]
Joris van Heijningen (UC Louvain)
Jiju John (LEOS/ISRO)
Seiji Kawamura (Nagoya University) [remote]
Taichi Kawamura (University of Paris City, IGP)
Andrea Melandri (INAF - Osservatorio Astronomico di Roma)
Sanjit Mitra (IUCAA)
Marco Muccino (INFN LNF)
Yosio Nakamura (UT Institute of Geophysics) [remote]
Shyama Narendranath (URSC/ISRO)
Tsvi Piran (Hebrew University)
Silvia Piranomonte (INAF - Osservatorio Astronomico di Roma)
Sendhil Raja (RRCAT)
Pau Amaro Seoane (Polytechnic U. Valencia) [remote]
Alberto Sesana (Università di Milano-Bicocca) [TBC]
Surinder P Singh (NPL)
Shreevathsa Chalathadka Subrahmanya (U. Hamburg)
Martina Toscani (L2I - Toulouse) [remote]

ORGANISERS

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