## **Lunar Gravitational-wave Antenna workshop**

# **Tuesday 8 October 2024**

## LGWA meeting: Welcome session and intro talks (09:00 - 10:30)

## -Conveners: Roberto Della Ceca; Jan Harms

time [id] title	presenter
09:00 [11] Update on the Lunar Gravitational-wave Antenna	HARMS, Jan
09:30 [45] The Taiji mission and its recent progress	LUO, Ziren
10:00 [10] Future terrestrial GW detectors	RICCI, Fulvio

## <u>LGWA meeting: Synergies with other lunar missions and EM - GW observatories</u> (11:00 - 12:30)

#### -Conveners: Marica Branchesi

time [id] title	presenter
11:00 [46] Italy on the Moon Science	COSMO, Mario
11:15 [7] Chasing Super-Massive Black Hole merging events with Athena and LISA	PIRO, Luigi
11:40 [8] LEM-X - The Lunar Electromagnetic Monitor in X-rays	Dr EVANGELISTA, Yuri
12:05 [9] Vera C. Rubin Observatory Legacy Survey of Space and Time activities	BONITO, Rosaria

## LGWA meeting: Multiband science and observations (14:30 - 16:00)

#### -Conveners: Andrea Maselli

time [id] title	presenter
14:30 [12] Multiband GW cosmology	MAGGIORE, Michele
15:00 [13] Challenges of estimating sky-localization with multiband observations	TISSINO, Jacopo
15:20 [47] Approaches to obtain coordinate-independent sky-localization errors	SCHULZ, Matteo
15:30 [14] Quasi normal mode detectability by future space detectors	ANSELMO, Chiara

### LGWA meeting: Multiband science and observations (16:30 - 18:00)

#### -Conveners: Paola Severgnini

time [id] title	presenter
16:30 [15] Multiband BBH population studies	SCHNEIDER, Raffaella
17:00 [17] Simulating the evolution of black hole pairs and their implications for the LGWA	SINGH, Jasbir
17:20 [16] Unveiling the nature of IMBHs with LGWA, ET, and LISA	ARCA SEDDA, Manuel

## Wednesday 9 October 2024

## LGWA meeting: Presentation of payload consortium (09:00 - 10:30)

#### -Conveners: Joris van Heijningen

time [id] title	presenter
09:00 [21] Payload introduction and Watt's linkage	VAN HEIJNINGEN, Joris
09:18 [31] Superconducting accelerometer	BIAN, Xing
09:36 [26] Actuator coil fabrication	SHARMA, Meenakshi
09:54 [27] Actuator coil characterization	PERALI, Andrea
10:12 [22] Sorption cooler	VAN LIMBEEK, Michiel

### LGWA meeting: Presentation of payload consortium (11:00 - 12:30)

#### -Conveners: Joris van Heijningen

time [id] title	presenter
11:00 [25] Electronics	FERRAIOLI, Luigi
11:18 [23] Platform leveling	DORAVARI, Suresh
11:36 [24] Superconducting readout	GOTTADI, Luciano
11:54 [28] E-TEST / CRISTAL sensor test facility	COLLETTE, Christophe
12:12 [29] GEMINI sensor test facility	ANDRIC, Tomislav

## LGWA meeting: Binaries with white dwarfs (waveforms, populations, SN 1a, TDE, ...) (14:30 - 16:00)

#### -Conveners: Alexey Bobrick

time	[id] title	presenter
14:30	[19] Matter-dominated gravitational wave sources	BOBRICK, Alexey
15:00	[30] 3DMHD simulations of white dwarf mergers and their GW signals	MORÁN FRAILE, Javier
	[38] Estimates on the visibility of LGWA of gravitational counterparts of tidal disruptions by intermediate-mass black holes	KEPPLER, Elisabeth

## LGWA meeting: Binaries with white dwarfs (waveforms, populations, SN 1a, TDE, ...) (16:30 - 18:00)

time [id] title	presenter
16:30 [44] Galactic DWD population models	TOONEN, Silvia
17:00 [42] Observations of galactic GW sources for LISA/LGWA	KUPFER, Thomas
17:30 [20] LGWA's localization capabilities on a simulated DWD population	BENETTI, Giovanni
17:50 [43] Discussion	BOBRICK, Alexey

## Thursday 10 October 2024

## LGWA meeting: LGWA site characterization and selection (09:00 - 10:30)

-Conveners: Marco Olivieri

time	[id] title	presenter
09:00	[18] Luni-solar gravitational control on the Earth's geodynamics	DOGLIONI, Carlo
	[39] Single-Seismometer Illumination of Deep Planetary Interiors: A Way Out with Global Inter-Source Correlations	WANG, Sheng
09:50	[40] Synthetic models of the lunar seismic field	CASAROTTI, Emanuele
10:10	[41] Terrestrial analogues for seismic site characterization	OLIVIERI, Marco

## LGWA meeting: Discussion (11:00 - 12:30)

-Conveners: Jan Harms

## LGWA meeting: Lunar science and exploration (16:30 - 18:00)

-Conveners: Alessandro Frigeri

time [id] title	presenter
16:30 [32] Session introduction	Dr FRIGERI, Alessandro
16:40 [33] The Role of Geology in LGWA	Dr FRIGERI, Alessandro
17:00 [34] Geologic Mapping of the Moon: History, Rationale, and Role in Exploration	SKINNER, James
17:20 [35] International Collaboration in Support of Planetary Geologic Mapping	LUNA, Jeannette
17:40 [36] Questions & Discussion	Dr FRIGERI, Alessandro
17:50 [37] Information regarding the Geologic Field Trip to Colli Albani (or backup visit to the Nemi Museum in case of bad weather)	Dr FRIGERI, Alessandro