

Fundamental Physics with LISA
"Cosmological Frontiers in Fundamental Physics 2022 Workshop"
Solvay - APC - Perimeter Institute
Brussels, April 26 - 28, 2022

TUESDAY 26 APRIL

09:00 - 09:20	Registration
09:20 - 09:30	Welcome speech

Session 1 - Tests of General Relativity

09:30 - 10:15	Convener: Thomas Sotiriou - <i>Tests of GR with LISA I</i>
10:15 - 10:45	COFFEE BREAK (in the hall adjacent to the conference room)
10:45 - 11:30	Convener: Daniela Doneva - <i>Tests of GR with LISA II</i>
11:30 - 11:50	Focus talk: Diego Blas - <i>Propagation effects, Lorentz violation and memory in MG</i>
11:50 - 12:30	Discussion
12:30 - 14:30	LUNCH BREAK (in the hall adjacent to the conference room)

Session 2 - Lambda CDM and Dark Energy

14:30 - 15:15	Convener: Filippo Vernizzi - <i>Testing LCDM model and dark energy with LISA</i>
15:15 - 16:00	Convener: Jose Ezquiaga - <i>Testing LCDM with LISA</i>
16:00 - 16:30	COFFEE BREAK (in the hall adjacent to the conference room)
16:30 - 16:50	Focus talk: Archisman Ghosh - <i>H0 from GWs</i>
16:50 - 17:30	Discussion
17:30	Reception in the hall adjacent to the conference room

WEDNESDAY 27 APRIL

Session 3 - Nature of Black Holes

09:30 - 10:15	Convener: Carlos Herdeiro - <i>Testing the Kerr hypothesis: universality, imitators and dynamical signatures</i>
10:15 - 10:45	COFFEE BREAK (in the hall adjacent to the conference room)
10:45 - 11:30	Convener: Paolo Pani - <i>Black Hole Microstates & LISA</i>
11:30 - 11:50	Focus talk: Richard Brito - <i>Inspiralling compact objects with generic deformations</i>
11:50 - 12:30	Discussion

- 12:30 - 12:40 Group Photo
12:40 - 14:30 LUNCH BREAK (in the hall adjacent to the conference room)

Session 4 - Model-independent Tests

- 14:30 - 15:15 Convener: Mairi Sakellariadou - *Model-independent tests of Gravity with LISA*
15:15 - 16:00 Convener: Lavinia Heisenberg - *TBA*
16:00 - 16:30 COFFEE BREAK (in the hall adjacent to the conference room)
16:30 - 17:10 Discussion
19:30 Banquet 'Aux Armes de Bruxelles' Rue des Bouchers 13, 1000 Bruxelles

THURSDAY 28 APRIL

Session 5 - Dark Matter and Primordial Black Holes

- 09:30 - 10:15 Convener: Katy Clough - *Particle dark matter, opportunities and challenges*
10:15 - 10:45 COFFEE BREAK (in the hall adjacent to the conference room)
10:45 - 11:30 Convener: Gabriele Franciolini - *Testing primordial black holes as dark matter with LISA*
11:30 - 11:50 Focus talk: Sébastien Clesse - *Key questions on Primordial Black Holes*
11:50 - 12:30 Discussion
12:30 - 14:00 LUNCH BREAK (in the hall adjacent to the conference room)

Session 6 - Astrophysics and Waveform systematics

- 14:00 - 14:30 Convener: Jonathan Gair: LSG
14:30 - 15:15 Convener: Enrico Barausse - *Environmental effects and matter systematics for LISA*
15:15 - 16:00 Convener: Tanja Hinderer - *TBA*
16:00 - 16:30 COFFEE BREAK (in the hall adjacent to the conference room)
16:30 - 17:30 Closing Discussion + election junior co-chair