



# Solvay Workshop on Gravitational Waves

19-21 February 2025, ULB - Campus Plaine - Building NO - 5<sup>th</sup> Floor - Solvay Room

## WEDNESDAY 19 FEBRUARY

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09:00 – 09:15 Registration

**Chair: Samaya Nisanke**

09:15 – 09:20 Opening and welcome speech by Samaya Nisanke

09:20 – 10:00 **Wendy Freedman - Talk online**

10:00 – 10:40 **Julien Lesgourgues:** *Attempts to explain the Hubble tension with alternative cosmologies*

10:40 – 11:10 COFFEE BREAK

11:10 – 11:50 **Bernard Schutz:** *The Unexpected Discovery of Standard Sirens*

11:50 – 12:40 **Rachel Gray:** *Cosmology with Dark Sirens and Galaxy Catalogues: a review*

12:40 – 14:00 LUNCH BREAK

**Chair: Sébastien Clesse**

14:00 – 14:40 **Adam Riess - Talk online:** *JWST and the Hubble Tension*

14:40 – 15:20 **Dillon Brout:** *Precision Cosmology with Type Ia Supernovae*

15:20 – 15:50 COFFEE BREAK

15:50 – 17:00 **Panel 1: Hubble Tension (Chair: Licia Verde)**

## THURSDAY 20 FEBRUARY

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**Chair: Geoffrey Compere**

09:00 – 09:40 **Archisman Ghosh:** *Gravitational-wave observations: from LIGO-Virgo-KAGRA towards the Einstein Telescope*

09:40 – 10:20 **Tanja Hinderer:** *Gravitational-wave source modeling using analytical relativity*

10:20 – 11:00 **Stefan Hild:** *Einstein Telescope's amazing sensitivity - and will we reach it?"*

11:00 – 11:30 COFFEE BREAK

11:30 – 12:10 **Francois Foucart:** *Modeling merging neutron stars through numerical simulations*

12:10 – 12:50 **Sarah Antier:** *EM follow up of GW sources*

12:50 – 14:00 LUNCH

### Chair: Alex Sevrin

- 14:00 – 14:40 **Antonella Palmese:** *Multimessenger measurements and prospects for cosmology with gravitational wave ground based detectors*
- 14:40 – 15:20 **Justin Janquart:** *Lensed gravitational wave to study the Universe*
- 15:20 – 15:50 COFFEE BREAK
- 15:50 – 16:30 **Mairi Sakellariadou**
- 16:00 – 18:00 **Lightening talks poster session**
- 19:30 – 22:00 BANQUET (Les Petits Oignons, rue de la Régence, 25)

### FRIDAY 21 FEBRUARY

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### Chair: Sébastien Clesse

- 09:00 – 09:40 **Michael Kramer:** *Opening a new GW frequency window with Pulsar Timing Arrays*
- 09:40 – 10:20 **Chiara Mingarelli - Astrophysics with Pulsar Timing Arrays: Current Results and Future Directions**
- 10:20 – 11:00 **Andrea Mitridate:** *The nHz Gravitational Wave Background: evidence and open questions*
- 11:00 – 11:30 COFFEE BREAK
- 11:30 – 12:10 **Chiara Caprini:** *Cosmology with LISA: stochastic background and standard sirens*
- 12:10 – 12:50 **James Alvey:** *Machine Learning for Gravitational Waves: Challenges and Opportunities*
- 12:50 – 13:00 Group Photo
- 13:00 – 14:00 LUNCH
- 14:00 – 15:00 **Panel 2: What Are We Missing? (Chairs: Bernard Schutz & Samaya Nissanke)**
- 15:00 Closure of the Workshop

### Coffee Breaks and Lunches:

- Coffee breaks will be provided for all attendees (in the hall adjacent to the conference room).
- Invited speakers and committee members will have lunch at the UAE restaurant on Wednesday, 19 February, and Thursday, 20 February.
- Participants who register through our website are required to arrange their own lunch on these days. (A cafeteria is available on campus, and several snack shops are within a 15-minute walk.)
- On Friday, 21 February, sandwiches will be provided for everyone (in the hall adjacent to the conference room).