

Lorenzo Speri | Presentations

lorenzo.speri@esa.int • <https://lorenzsp.github.io/>

Presentations: 19 talks at conferences (invited 9), 11 talks at department seminars (invited 11).

Invited talks marked with *.

Talks at conferences:

- 19.* *Resolving and representing correlations between sources and between source classes in LISA data.*
LISA Without Frontiers, Sexten, Italy, 13/01/2026.
- 18.* *A roadmap of gravitational wave data analysis: The challenges of going to lower frequencies.*
Belgian-Dutch Gravitational Wave Meeting 2025, Nijmegen, The Netherlands, 28/10/2025.
17. *Unlocking the Science Objectives of Extreme Mass Ratio Inspirals.*
GR/Amaldi, Glasgow, UK, 18/07/2025.
- 16.* *From Nano- to Millihertz Gravitational waves: Bridging methods across the spectrum.*
GR/Amaldi, Glasgow, UK, 16/07/2025.
 - Talk as part of the 2024 GWIC thesis prize.
- 15.* *Roadmap for the inclusion of Extreme Mass Ratio Inspirals in the LISA global fit.*
EMRIs within the LISA Global Fit - Part I, Astroparticule et cosmologie (APC), Paris, 25/03/2025.
14. *Exploring Transdimensional Sampling Techniques for Euclid Data Analysis: Insights from Gravitational Wave Astronomy.*
ESLAB Symposium and Euclid Consortium Meeting, Leiden, 25/03/2025.
13. *Prospects and Challenges of the Laser Interferometer Space Antenna.*
Space Science Workshop 17, Akersloot, Netherlands, 12/02/2025.
- 12.* *LISA data analysis highlight.*
LISA-Netherlands Community Day, Nikhef, Amsterdam, 10/10/2024.
11. *FastEMRIWaveforms: Waveform package for asymmetric binaries.*
15th LISA Symposium, Dublin, Ireland, 09/07/2024.
- 10.* *Challenges and prospects of future Pulsar Timing Array analyses.*
11th LISA Cosmology Working Group Workshop, Porto, Portugal, 20/06/2024.
- 9.* *Gravitational self-force: The two-body problem in the small mass ratio limit.*
GWnext 2024, Beijing, China, 05/03/2024.
- 8.* *Testing General Relativity with LISA observations.*
Asymmetric Binaries Meet Fundamental Astrophysics, L'Aquila, Italy, 22/09/2023.
7. *Beyond vacuum Extreme Mass Ratio Inspirals.*
1st Trieste Meeting on the Physics of Gravitational Waves, Trieste, Italy, 09/06/2023.
 - Tutorial session.
6. *Fast EMRI Waveform package: New tools for millihertz gravitational-wave data analysis.*
LISA data analysis workshop: from classical methods to machine learning, Toulouse, France, 25/11/2022.
- 5.* *GPU Techniques to Accelerate GW Waveforms and Data Analysis Computations.*
LISA data analysis workshop: from classical methods to machine learning, Toulouse, France, 25/11/2022.
 - Tutorial session.
4. *Probing accretion disk physics with Extreme Mass Ratio Inspirals.*
25th Capra Meeting on Radiation Reaction in General Relativity, Dublin, Ireland, 23/06/2022.
3. *Testing General Relativity with Extreme Mass Ratio Inspirals.*
EuCAPT Workshop: Gravitational wave probes of black hole environments, Rome, Italy, 16/06/2022.
2. *Assessing the impact of transient orbital resonances.*
24th Capra Meeting on Radiation Reaction in General Relativity, Online, 11/06/2021.
1. *Pulsar selection methods.*
EPTA spring meeting, Online, 24/03/2021.

Talks at department seminars:

- 11.* *The Need for Speed in Gravitational Wave Modelling and Data Analysis.*
Utrecht University, The Netherlands, 29/10/2025.
- 10.* *EMRlching our understanding of the Universe with gravitational wave observations of extreme mass ratio inspirals.*
Gravity Seminar, Birmingham University, UK, 09/07/2025.

- 9.* *Millihertz Gravitational Waves: Challenges and opportunities in the LISA Era.*
Quantum and Gravity Seminar, Radboud University, Nijmegen, The Netherlands, 23/04/2025.
- 8.* *Unlocking the science of Asymmetric Binaries with LISA.*
University of Balearic Islands, Palma de Mallorca, Spain, 11/04/2025.
- 7.* *Science with asymmetric binaries.*
University of Southampton, Southampton, 05/03/2025.
- 6.* *Millihertz Gravitational Waves: Challenges and Opportunities in the LISA Era.*
Perimeter Institute, Waterloo, 30/01/2025.
- 5.* *Challenges of LISA Data Analysis.*
Institute for Gravitational and Subatomic Physics (GRASP), Utrecht, 11/12/2024.
- 4.* *Gravitational Wave Observations in the Millihertz Regime: Prospects and Challenges of the Upcoming LISA Mission.*
GRAPPA Colloquium, Amsterdam, 11/11/2024.
- 3.* *With great precision comes great challenges: Gravitational Wave Observations of Extreme Mass Ratio Inspirals.*
TAPIR Seminar, Caltech, Pasadena, 08/12/2023.
- 2.* *Probing Accretion Physics with Gravitational Waves.*
OzGrav Seminar, online, 11/08/2023.
- 1.* *Extreme Mass Ratio Inspiral Waveforms in a nutshell.*
Amsterdam, The Netherlands, 01/2023.
 - Two tutorial sessions of two hours each.