

Mudit Garg

Nationality : Indian

✉ : mudit.garg@uzh.ch

🌐 : [muditgarg96.github.io](https://github.com/muditgarg96)

EDUCATION

08/2021 – 07/2025	PhD in Gravitational Waves Astrophysics University of Zurich	Advisor: Prof. Dr. Lucio Mayer
09/2018 – 12/2020	Master of Science in Physics with distinction ETH Zurich	GPA: 5.87/6 Advisor: Prof. Dr. Lavinia Heisenberg <i>Relativistic, ghost-free, and covariant hybrid model for MOND: $f(Q)$</i>
07/2014 – 06/2018	Bachelor of Technology in Engineering Physics IIT Delhi	GPA: 8.15/10 Advisor: Prof. Dr. Ajit Kumar <i>Geodesics near a charged black hole in $(R \pm \mu^4/R)$ gravity</i>

SELECTED TALKS/PRESENTATIONS

10/2024	CTC Theory Seminar University of Maryland <i>TBD</i> [†]	College Park
09/2024	LISA Lunch NASA Goddard <i>TBD</i> [†]	Greenbelt
09/2024	Astro Coffee Princeton University <i>TBD</i> [†]	Princeton
09/2024	Astro Seminar Columbia University <i>TBD</i> [†]	NYC
09/2024	Monday Afternoon Talks MIT Kavli Institute for Astrophysics and Space Research <i>TBD</i> [†]	Boston
09/2024	Meeting: The Swiss Physical Society ETH Zurich <i>TBD</i> [†]	Zurich
08/2024	Conference (Invited): New ideas on the origin of BH mergers Niels Bohr Institute <i>Astrophysical signatures on the LISA data stream from MBHBs</i>	Copenhagen
07/2024	15th LISA Symposium University College Dublin <i>Poster: Astrophysical signatures on the LISA data stream from MBHBs</i>	Dublin
06/2024	Seminar: GRAPPA University of Amsterdam <i>Astrophysical signatures on the LISA data stream from MBHBs</i>	Amsterdam
06/2024	LISA community Call <i>Measuring eccentricity and gas from GWs of LISA MBHBs</i>	Online
05/2024	Seminar: MPA Cosmology Max Planck institute for Astrophysics <i>Astrophysical signatures on GWs from LISA MBHBs</i>	Garching

02/2024	Seminar: DAMTP General Relativity University of Cambridge <i>Astrophysical signatures on the LISA data stream from MBHBs</i>	Cambridge
09/2023	Meeting: LISA Astrophysics Working Group University of Milano-Bicocca <i>The minimum measurable eccentricity from GWs of LISA MBHBs</i>	Milan
09/2023	Meeting: The Swiss-Austrian joint Physical Society University of Basel <i>The minimum measurable eccentricity from GWs of LISA MBHBs</i>	Basel
07/2023	Conference: Gravitational-wave populations: what's next? University of Milano-Bicocca <i>The measurability of gas and eccentricity from GWs of LISA MBHBs</i>	Milan
07/2023	Call: LISA data challenge working group <i>Measuring eccentricity from GWs of LISA MBHBs</i>	Online
11/2022	Conference: LISA data analysis: classical methods to machine learning CNRS, L2IT, APC, CEA, and CNES <i>The imprint of Gas on GWs from LISA IMBH Binaries</i>	Toulouse
09/2022	Conference: Origin, growth and feedback of black holes in dwarf galaxies Donostia International Physics Center <i>The imprint of Gas on GWs from LISA IMBH Binaries</i>	San Sebastian
05/2022	Conference: IMBHs: New Science from Stellar Evolution to Cosmology CIERA, Northwestern University <i>Gas impact on GWs from LISA IMBH Binaries</i>	San Juan
03/2024	Annual PhD seminar Department of Astrophysics, University of Zurich Tests of General Relativity using Gravitational Waves	
03/2023	Bayesed Gravitational Waves: an MCMC story	
02/2022	The Future of Gravitational Waves	

† Will participate

RESEARCH VISITS

10/2024	Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA) <i>Host: Prof. Dr. Shane Larson</i> [†]	Evanston
09/2024	Center for Computational Astrophysics <i>Host: Prof. Dr. Will Farr, Dr. Matteo Cantiello, and Dr. Yan-Fei Jiang</i> [†]	NYC
02/2024	Institute of Gravitational Wave Astronomy <i>Host: Prof. Dr. Alberto Vecchio</i>	Birmingham
02/2024	Institute of Cosmology and Gravitation <i>Host: Prof. Dr. Ian Harry</i>	Portsmouth
11/2023	Max Planck institute for Gravitational Physics (Albert Einstein Institute) <i>Host: Dr. Jonathan Gair</i>	Potsdam

† Will participate

PROGRAMS/SCHOOLS

09/2024	Workshop: Fundamental Physics Meets Waveforms With LISA <i>Max Planck institute for Gravitational Physics (Albert Einstein Institute)</i>	Potsdam
09/2023	Kavli-Villum School: Gravitational Waves <i>Corfu Summer Institute</i>	Corfu
11/2022	Workshop: LISA data analysis: classical methods to machine learning <i>CNRS, L2IT, APC, CEA, and CNES</i>	Toulouse
07/2022	Workshop: LISA Data Challenge Workshop <i>LISA Data Challenge Working Group</i>	Online
07/2022	Workshop: From Scattering Amplitudes to GW Predictions for Compact Binaries <i>ETH Zurich & University of Zurich</i>	Zurich
06/2022	Meeting: LISA Astrophysics Working Group <i>Institute for Gravitational Wave Astronomy, University of Birmingham</i>	Online
01/2022	Saas-Fee School: Multi-Messenger GW Astronomy <i>Swiss Society for Astrophysics and Astronomy</i>	Saas-Fee
08/2021	NBIA School: Gravitational wave astrophysics <i>Niels Bohr Institute, University of Copenhagen</i>	Copenhagen

† Will participate

PROFESSIONAL RESPONSIBILITIES AND MEMBERSHIPS

2023 –	Organizer of the ‘GWs, BHs, and Compact Binaries’ seminar <i>Department of Astrophysics, University of Zurich</i>
2023 –	Contributor to the TianQin white paper <i>Computed the gas-induced dephasing for intermediate-mass inspirals</i>
2022 –	Contributor to the LISA DiscIMRI code comparison project <i>Tasks: Literature review, plot making, and text writing</i>
2021 –	Member of the LISA consortium and its astrophysics, waveforms, and data challenge working groups
2021 –	Teaching assistant for several astrophysics courses at the University of Zurich
2021	Research assistant at the Department of Astrophysics, University of Zurich

SKILLS

Programming Languages: Python LaTeX	Software: Mathematica lisabeta
Languages: English German (A1.1) Hindi	Others: PyTorch Terminal Git

OTHER ACTIVITIES

- **Hobbies and Interests:** Outdoor activities, board and video games, and swimming

Last update: September 11, 2024