

Riccardo Buscicchio | Curriculum Vitæ

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Academic positions

Università degli Studi di Milano-Bicocca	Milan, Italy
Postdoc (Assegnista di ricerca), Department of Physics "G.Occhialini"	2021 - 2024
◦ Main activity: development of LISA data analysis ground-segment for the Italian Space Agency (Phase A).	
Università degli Studi di Milano-Bicocca	Milan, Italy
Postdoc (Assegnista di ricerca), Department of Physics "G.Occhialini"	2024 - current
◦ Main activity: development of LISA data analysis ground-segment for the Italian Space Agency (Phase B).	

Education

University of Birmingham	Birmingham, UK
Ph.D., School of Physics & Astronomy	2017-13/07/2022
◦ Supervisor: A. Vecchio. Thesis resulted in 6 short-author publications.	
◦ Thesis Title: Topics in Bayesian population inference for Gravitational Wave Astronomy	
Università degli Studi di Pisa	Pisa, Italy
Master's degree in Theoretical physics	2013-2016
◦ Supervisor: G. Cella. Thesis resulted in one short-author publications.	
◦ Thesis title: An improved detector for non-gaussian stochastic background of gravitational waves.	
Columbia University	New York NY, USA
INFN-NSF Summer Internship	Jun-Sept 2013
◦ Supervisor: S. Marka, I. Bartos.	

Metrics

Publications:

- 32 short-author papers published in major peer-reviewed journals (out of which 7 first-authored papers and 8 lead by supervised student).
- 13 collaboration papers with substantial contribution, published in major peer-reviewed journals
- 47 collaboration papers in total, published in major peer-reviewed journals
- 5 papers in submission stage,
- 2 other publications (thesis, white papers, reviews)

Total number of citations: >15900. h-index: 24 (from ADS and INSPIRE record).

Web links to list services: [ADS](https://arxiv.org/); [INSPIRE](https://arxiv.org/); [arXiv](https://arxiv.org/); [orcid](https://orcid.org/).

Full list of publications available at www.riccardobuscicchio.com/publications.

Full list of presentations available at www.riccardobuscicchio.com/talks.

Codes & Datasets

Title	Code	Dataset	Zenodo DOI	Public
○ Bahamas	✓		10.5281/zenodo.16087705	✓
○ Hypertriangulation Map	✓		10.5281/zenodo.13897708	✓
○ Bayesian PowerLaw Sensitivity	✓	✓	10.5281/zenodo.14384633	✓
○ Milky Way Satellites		✓	10.5281/zenodo.3668904	✓
○ LISA stellar BBH catalogues and samples	✓	✓	10.5281/zenodo.14426778	✓
○ LISA MBHB catalogues and samples		✓	10.5281/zenodo.13787674	✓
○ Chirp Gravitational Wave Alerts	✓		10.5281/zenodo.3525063	✓

Grants, Prizes, & Awards

Career prizes:

- Braccini PhD Thesis Prize, Gravitational Wave International Committee honorable mention. 2021
- Michael Penston PhD Thesis Prize, Royal Astronomical Society runner-up prize. 2021

Other funding:

- EuroHPC PRACE “LABELFIT” proposal, 224k CPUh on Leonardo DCGP 2025
- EuroHPC PRACE “LISA-FIT” proposal, 100k CPUh on Leonardo BOOSTER 2023
- Google Cloud for Researchers, 4kEUR Google Cloud Research Credits 2023
- CINECA ISCRA Type-C project “LISA-MW” proposal, 10k CPUh at the Italian National HPC center. 2022
- Travel Grant, Horizon 2020 AHEAD 2020 (High Energy Astrophysics) 2021
- Travel Grant, American Physical Society, DGRAV Student Travel Grant 2020
- Travel Grant, Institute of Physics Student Travel fund 2019
- Travel Grant, Royal Astronomical Society, UK. 2018

Student supervision

According to current national regulations, as a research fellow I cannot be officially appointed as supervisor of students at any level. However, upon authorization by the relevant permanent staff, I have supervised the work of students in the percentages shown below.

Ph.D. student co-supervisor:

- F. Nobili, University of Insubria, 100% 2024-2027
- A. Spadaro, University of Milano-Bicocca, 100% 2022-2025
- F. Pozzoli, University of Insubria, 100% 2022-2025

MSc student co-supervision:

- L. Viganò, University of Milano-Bicocca, Master’s thesis, 100% 2024-2025
- M. Bellotti, University of Milano-Bicocca, Master’s thesis, 100% 2024-2025
- D. Chirico, University of Milano-Bicocca, Master’s thesis, 100% 2023-2024
- S. Corbo, Politecnico di Milano, Master’s thesis, 100% 2023-2024
- R. Rosso, University of Pisa, Master’s thesis, 80%. 2023-2024
- G. Astorino, University of Pisa, Master’s thesis, 80%. 2023-2024
- M. Piarulli, University of Milano-Bicocca, Master’s thesis, 100%
(now PhD student at Univ. of Toulouse) 2022-2023
- A. Spadaro, University of Milano-Bicocca, Master’s thesis, 100%.
(now PhD student at Univ. of Milano-Bicocca) 2021-2022
- A. Carzaniga, University of Milano-Bicocca, Master’s thesis, 100%. 2021-2022
- A. Geminardi, University of Milano-Bicocca, Master’s thesis, 100%.
(now PhD student at Univ. of Pavia) 2021-2022
- E. Finch, University of Birmingham, Year 4 project, 50% 2018
- V. Spasova, University of Birmingham, Year 4 project, 50% 2018

BSc student supervision:

- H. P. G. Carabajo, University of Milano-Bicocca, Bachelor's thesis, 100%. 2023-2024

Taught classes

Acad.Year

- **Current and future challenges in GW astronomy**, PhD course, Milano-Bicocca (Italy). 2023
 Content: Introduction to gravitational-wave data analysis.
 Space-based and ground-based interferometers.
 Source populations: compact object binaries, stochastic backgrounds.
- **Mathematical physics and gravity** (MAF900), PhD course, Univ. of Stavanger (Norway). 2023
 Content: Introduction to gravitational-wave data analysis. Space-based interferometers.
 Source populations: compact object binaries, stochastic backgrounds.
 Signal modeling: galactic and extragalactic compact object binaries
 astrophysical and cosmological stochastic backgrounds.
 Signal detection and parameter estimation: frequentist and Bayesian approaches.
 Advanced stochastic sampling techniques.
- **Lecture in Astroststatistics** (F5802Q014/20), Astrophysics MSc, Univ. of Milano-Bicocca (Italy) 2022
 Content: Source populations: compact object binaries, stochastic backgrounds.
 Introduction to gravitational-wave data analysis. Space-based interferometers.
 Signal detection and parameter estimation: frequentist and Bayesian approaches.

Tutoring

Acad.Year

- **Python Computing Lab**, Bachelor's degree in Physics, Univ. of Birmingham, UK 2017-2021
 Content: Python programming, simulation of physical systems in celestial
 and classical mechanics, thermodynamics, electromagnetism. Data analysis.
- **Maths for physicists**, Bachelor's degree in Physics, Univ. of Birmingham, UK 2017-2019
 Content: Linear algebra, differential and integral calculus, differenzial equations
 Groups and representations theory
- **Physics and communication skills**, Master's degree in Physics, Univ. of Birmingham, UK. 2019
 Content: \LaTeX basics. Drafting of lab reports, publications, seminars

Academic service, editorial and research responsibilities

International collaboration responsibilities

Co-chair of the Coordination Unit L2D (Global Fit, ESA LISA Project Office)

2024-2025

Journal referee

- Physical Review Letters
- The Astrophysical Journal Letters
- Journal of Cosmology and Astroparticle Physics
- Monthly Notices of the Royal Astronomical Society
- Institute of Physics Trusted Reviewer Excellence program
- Physical Review D
- The Open Journal of Astrophysics
- NASA Technology Transfer Program
- Classical and Quantum Gravity

Editorial responsibilities

- Editorial board Lensing working group in the LIGO, Virgo, KAGRA collaboration 2023
- Co-editor of a Living Review in relativity issue on “LISA data analysis” 2022-2023

Conference organizer

- *LISA Distributed Data Processing Center June Workshop*, Milan, IT. 2025
- *IFPU focus week* on “*Emerging methods in GW population inference*”, Trieste, Italy. 2024
- *LISA Astrophysics Working Group Conference*, Birmingham, UK. 2022
- *Gravitational-wave populations: what’s next?*, Milan, Italy. 2023
- *Gravitational-wave Excellence Alliance Training (GrEAT) PhD school*, Birmingham, UK. 2019
- *Gravitational-wave Open Science Center First Open Data Workshop*, (online) 2019

Professional recognition and service

- National Scientific Habilitation (ASN) as associated professor. 2023
in Astrophysics, Cosmology and Space Science (GSD 02/PHYS-05 - PHYS-05/A)
- French Qualification for teaching in Higher Education in Astrophysics (Sec.34), 2023
French Ministry of higher education and research (qualification no.23234388826).
- LSC Academic Advisory Committee. 2019-2021

Memberships

- LISA Distributed Data Processing Center, full member. since 2024
- LISA Consortium, core member. since 2018
- Italian Center for Supercomputing (ICSC). since 2021
- TEONGRAV National Initiative (Gravity Theory) since 2021
Italian National Institute for Nuclear Physics (INFN).
- LIGO, Virgo, Kagra Collaboration, full member. since 2017
- Italian Society of General Relativity and Gravitational Physics (SIGRAV) since 2021
- Istituto Nazionale di Astrofisica (INAF) since 2021
- American Physical Society (APS), member.
- Italian Physical Society (SIF), member 2021
- Royal Astronomical Society (RAS), fellow. 2018-2021

Date: October 1, 2025