

# Gianluca Inguglia - Curriculum Vitae

## Personal information

Name: Inguglia, Gianluca  
Institute: MBI, Georg-Coch-Platz 2, 1010, Vienna, Austria  
Current position: Group Leader (tenured)  
ORCID: 0000-0003-0331-8279  
Date of birth: 16 October, 1981  
Nationality: ITALY  
Homepage URL: Gianluca Inguglia  
Research Interest: Fundamental physics, dark matter, gravitational waves, particle physics.

## Education

2014 Ph.D. in Physics, Queen Mary University of London, UK.  
2011 M.Sc. in Physics, University of Groningen, The Netherlands.  
2008 B.Sc. in Astronomy, University of Bologna, Italy.

## Scientific positions

Since 2024 MBI Group Leader (tenured), Austrian Academy of Sciences.  
2020-2024 HEPHY Junior Group Leader, tenure track, Austrian Academy of Sciences.  
2017-2020 Postdoc, HEPHY-Vienna, Austria.  
2014-2017 DESY postdoc Fellow, DESY-Hamburg, Germany.

## Third-party fundings acquired

**Total third-party funding acquired since 2018: 2,125,411.00 EUR.**

*InterLeptons: A search for new Interactions at Belle II using leptons*, European Research Council, Starting Grant, funding ID ERC-StG nr. 947006, 1,486,137.00 EUR, 11/2020–10/2025.

*Improved search for  $B^+ \rightarrow K^+ \nu \bar{\nu}$  at Belle II*, FWF Austrian Science Fund, PIP, funding ID FWF PAT1823724, 360,940.00 EUR, 2018–2022.

*Search for dark matter and dark forces at Belle II*, FWF Austrian Science Fund, Stand-Alone, funding ID FWF P31361-N36, 278,334.00 EUR, 2018–2022.

## List of selected invited presentations at international conferences

2024 ICHEP2024, Precision measurements of  $\tau$  lepton decays at Belle II, Prague, Czech Republic.  
2023 TAU2023, Wishlist for new results expected at Tau2025, Louisville, US.  
2022 IPPP Beyond flavour anomalies, What other LFU ratios will add, Durham.  
2021 Les Rencontres de Moriond QCD, latest results in  $\tau$  and dark sector physics at Belle.  
2019 La Thuile 2019: “Dark Sector Physics Within Belle II”.

## List of selected invited seminars or Colloquia

2026	Gravitational Waves, Atom Institute, Vienna.
2025	Gravitational Waves: A New Frontier Across Scales and Disciplines, Bologna.
2024	New Physics at Belle II, seminar “Flavour Physics beyond the Standard Model”, KIT.
2022	The InterLeptons project and the search for new fundamental interactions at Belle II, Atom Institute, AT (remote).
2020	Search for new interactions at Belle II, Birmingham University, UK (remote).
2019	Hunting for new interactions at Belle II, University of Siegen, Germany.

## Organisation of scientific meetings

2026	Organising Committee Member of AI4GW, CERN.
2024	Organising Committee Member of TAUP2023, Vienna.
2023	Chair of Alpine Physics Symposium (ALPS) 2023, Obergurgl, Austria
2022	Chair of IPA 2022 (Interplay between Particle and Astroparticle physics), Vienna.
2021	Chair of <i>Anomalies and Precision in the Belle II Era</i> , Vienna, September 2021.

## Supervision of graduate students

Since 2021    O(10) Master students, O(10) PhD students, 6 postdocs.

## Management and commission of trust

Since 2026	Co-chair of IMBH task force at the Einstein Telescope.
2024-2026	Member of the Belle II Publications Committee.
2019-2023	Chair of the Belle II Statistics Advisory Committee.
2019-2023	Member of the Executive Board of the Belle experiment.
2019-2013	Convenor for the Belle Collaboration of the Dark Sector Physics group.
Since 2019	Convenor for the JENNIFER II Consortium of the Dark Sector Physics activities.
2019-2021	Liaison for the Belle2 Machine Learning group and Belle II Stat. Adv. Committee.
2019-2021	Deputy chair of the Belle II Statistics Advisory Committee.
2017-2018	Convenor of the Belle II Statistics and New Physics Group.
Since 2015	Expert referee for STFC UK, for the Italian Ministry of education, and for <i>Journal of High Energy Physics</i> , <i>IoP</i> , <i>Physics Letters B</i> , Chinese Physics C.

## Nominations

–Nominated by the Austrian Academy of Sciences (ÖAW) for the 2025 bilateral Italy–Austria scientific cooperation prize: a formal recognition by my host institution of my scientific achievements and international standing.

## List of 10 selected publications

- Towards an anomaly detection pipeline for gravitational waves at the Einstein Telescope, G. Inguglia, H. Haigh, K. Vitoulova, U. Dupletsa, Phys. Lett. B **874**, 140272, ArXiv:2405.14625.  
DOI: <https://doi.org/10.1016/j.physletb.2026.140272>.
- Adaptive scattered light noise subtraction in GW detectors, A. Longo, G. Demasi, F. Di Renzo, S. Bianchi, G. Valdes, N. Arnaud, G. Inguglia, A. Cicone, M. Lenti, F. Bucci, G. Settanta, M. Montani, R. Cavassi, W. F. Plastino, Class. Quantum Grav. *in press*.  
DOI: <https://iopscience.iop.org/article/10.1088/1361-6382/ae0c50>.
- The Science of the Einstein Telescope, The Einstein Telescope Collaboration (participation as key author), accepted for publication in JCAP, ArXiv:2503.12263.  
DOI: <https://doi.org/10.48550/arXiv.2503.12263>.
- Test of light-lepton universality in  $\tau$  decays with the Belle II experiment, the Belle II Collaboration, Journal of High Energy Physics **08**, 205, ArXiv:2405.14625.  
DOI: [https://doi.org/10.1007/JHEP08\(2024\)205](https://doi.org/10.1007/JHEP08(2024)205).
- Search for an Invisible  $Z'$  in a Final State with Two Muons and Missing Energy at Belle II”, the Belle II Collaboration, Phys. Rev. Lett. **130**, 231801, ArXiv: 2212.03066.  
DOI: <https://doi.org/10.1103/PhysRevLett.130.231801>.
- Search for a dark photon and dark Higgs boson in  $\mu^+\mu^-$  and missing energy final states with the Belle II experiment”, the Belle II Collaboration, Phys. Rev. Lett. **130**, 071804, ArXiv:2207.00509.  
DOI: <https://doi.org/10.1103/PhysRevLett.130.071804>.
- Towards excluding a light  $Z'$  explanation of  $b \rightarrow s\ell^+\ell^-$ ,” A. Crivellin, C. A. Manzari, W. Altmannshofer, G. Inguglia, P. Feichtinger, J. M. Camalich, Phys. Rev. D **106** L031703, arXiv:2202.12900.  
DOI: <https://doi.org/10.1103/PhysRevD.106.L031703>.
- Testing Lepton Flavour Universality Violation in the Charged Current with Kaon, Pion, Tau and Beta Decays,” D. Bryman, V. Cirigliano, A. Crivellin and G. Inguglia, Annual Review of Nuclear and Particle Science **72**, ArXiv: 2111.05338.  
DOI: <https://doi.org/10.1146/annurev-nucl-110121-051223>.
- Punzi-loss: A non-differentiable metric approximation for sensitivity optimisation in the search for new particles”, P. Feichtinger, H. Haigh, G. Inguglia, J. Kahn *et al.*, Eur. Phys. J. C **82** (2022) 121, ArXiv: 2110.00810.  
DOI: <https://doi.org/10.1140/epjc/s10052-022-10070-0>.
- Search for an invisibly decaying  $Z'$  boson at Belle II in  $e^+e^- \rightarrow \mu^+\mu^-(e^\pm\mu^\mp) +$  missing energy final states”, Belle II Collaboration, Phys. Rev. Lett. **124**, 141801, arXiv: 1912.11276.  
DOI: <https://doi.org/10.1103/PhysRevLett.124.141801>.