PUBLICATION LIST
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USEFUL LINKS

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PUBLICATION LIST

1. *"Mapping the Universe's Expansion with Gravitational Waves and Neutral Hydrogen"*
   U. Dupletsa, M. Spinelli, S. Mastrogiovanni, T. Ronconi, R. Murgia, M. Schulz, J. Harms; *in preparation*

2. *"Multi-messenger observations of binary neutron star mergers: synergies between the next generation gravitational wave interferometers and wide-field, high-multiplex spectroscopic facilities"*
   S. Bisero, D. Vergani, E. Loffredo, M. Branchesi, H. Nandini, **U. Dupletsa**, R. I. Anderson; *submitted to A&A*, arXiv:2507.02055 [astro-ph.HE]

3. *"Fast and accurate parameter estimation of high-redshift sources with the Einstein Telescope"*
   F. Santoliquido, J. Tissino, **U. Dupletsa**, M. Branchesi, J. Harms, M. Arca Sedda, M. Dax, A. Kofler, S. R. Green, N. Gupte, I. M. Romero-Shaw, E. Berti; *submitted to PRD*, arXiv:2504.21087 [astro-ph.HE] [astro-ph.IM] [gr-qc]

4. *"The Science of the Einstein Telescope"*
   A. Abacet et al. incl. **U. Dupletsa**; *submitted to JCAP*, arXiv:2503.12263 [gr-cq]

5. *"Blinded Mock Data Challenge for Gravitational-Wave Cosmology-I: Assessing the Robustness of Methods Using Binary Black Holes Mass Spectrum"*
   A. Agarwal, **U. Dupletsa**, K. Leyde, S. Mukherjee, B. Revenu, J. E. Rivera, A. E. Romano, M. R. Sah, S. Vallejo-Pena, A. Avendano, F. Beirnaert, G. Dalya, M. C. Espitia, C. Karathanasis, S. Moreno-Gonzalez, L. Quiceno, F. Stachurski, J. Garcia-Bellido, R. Gray, N. Tamanini, C. Turski; *The Astrophysical Journal*, Vol. 987 (2025), DOI:10.3847/1538-4357/adda3a, arXiv:2412.14244 [astro-ph.CO], GitHub

6. *"Model-independent cosmology with joint observations of gravitational waves and γ-ray bursts"*
   A. Cozzumbo, **U. Dupletsa**, R. Caldèron, R. Murgia, G. Oganesyan, M. Branchesi; *JCAP*, Vol. 05 (2025) 021, DOI:10.1088/1475-7516/2025/05/021, arXiv:2411.02490 [gr-qc]

7. *"Parameter estimation catalogs for binary neutron star mergers detected with next-generation gravitational wave detectors"*
   U. Dupletsa, F. Santoliquido, M. Branchesi, E. Loffredo; Sept. 2024, https://zenodo.org/records/13850416

8. *"Prospects for optical detections from binary neutron star mergers with the next-generation multi-messenger observatories"*
   E. Loffredo, N. Hazra, **U. Dupletsa**, M. Branchesi, S. Ronchini, F. Santoliquido, A. Perego, B. Banerjee, S. Bisero, G. Ricigliano, S. Vergani, I. Andreoni, M. Cantiello, J. Harms, M. Mapelli, G. Oganesyan; *Astronomy & Astrophysics*, Vol. 697 (2025) A36, DOI:10.1051/0004-6361/202452863, arXiv:2411.02342 [astro-ph.HE], *public catalogues of data available on* Zenodo

9. *"Validating Prior-informed Fisher-matrix Analyses against GWTC Data"*
   U. Dupletsa, J. Harms, Ken K. Y. Ng, J. Tissino, F. Santoliquido, A. Cozzumbo; *Physical Review D*, Vol. 111 (2025), 2, 024036, DOI:10.1103/PhysRevD.111.024036, arXiv:2404.16103 [gr-qc], GitHub

10. *"Classifying binary black holes from Population III stars with the Einstein Telescope: a machine-learning approach"*
F. Santoliquido, **U. Dupletsa**, J. Tissino, M. Branchesi, F. Iacovelli, G. Iorio, M. Mapelli, D. Gerosa, J. Harms and M. Pasquato ; *Astronomy & Astrophysics*, Vol. 690 (2024), A362, DOI:10.1051/0004-6361/202450381, arXiv:2404.10048 [astro-ph.HE]

11. *"The Wide-field Spectroscopic Telescope (WST) Science White Paper"*
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12. *"Phenomenological models of Cosmic Ray transport in Galaxies"*
C. Evoli and **U. Dupletsa**; 2023, in *Proceedings of the International School of Physics "Enrico Fermi"*, Vol. 208: Foundations of Cosmic Ray Astrophysics, arXiv:2309.00298 [astro-ph.HE]

13. *"Science with the Einstein Telescope: a comparison of different designs"*
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14. *"Pre-merger alert to detect the very-high-energy prompt emission from binary neutron-star mergers: Einstein Telescope and Cherenkov Telescope Array synergy"*,
B. Banerjee, G. Oganesyan, M. Branchesi, **U. Dupletsa**, F. Aharonian, F. Brighenti, B. Goncharov, J. Harms, M. Mapelli, S. Ronchini, F. Santoliquido
Astronomy & Astrophysics, Vol. 678, DOI:10.1051/0004-6361/202345850, arXiv:2212.14007 [astro-ph.HE]

15. *"Measuring properties of primordial black hole mergers at cosmological distances: effect of higher order modes in gravitational waves"*,
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16. *"GWFish: A simulation software to evaluate parameter-estimation capabilities of gravitational-wave detector networks"*
U. Dupletsa, J. Harms, B. Banerjee, M. Branchesi, B. Goncharov, A. Maselli, A. C. S. Oliveira, S. Ronchini, J. Tissino; *Astronomy and Computing*, Vol. 42 (2023), DOI:10.1016/j.ascom.2022.100671, arXiv:2205.02499 [gr-qc], GitHub

17. *"Perspectives for multi-messenger astronomy with the next generation of gravitational-wave detectors and high-energy satellites"*,
S. Ronchini, M. Branchesi, G. Oganesyan, B. Banerjee, **U. Dupletsa**, G. Ghirlanda, J. Harms, M. Mapelli, F. Santoliquido; *Astronomy & Astrophysics*, Vol. 665 (2022), A97, DOI:10.1051/0004-6361 /202243705, arXiv:2108.07276 [astro-ph.HE]

18. *"On the single-event-based identification of primordial black hole mergers at cosmological distances"*,
K. K. Y. Ng, S. Chen, B. Goncharov, **U. Dupletsa**, S. Borhanian, M. Branchesi, J. Harms, M. Maggiore, B. S. Sathyaprakash, S. Vitale; ApJL, Vol. 931 (2022) L12, DOI 10.3847/2041-8213/ac6bea, arXiv:2108.07276 [gr-qc], [hep-ph]

COLLABORATION PAPERS

19. *"GWTC-4.0: constraints on the cosmic expansion rate and modified gravitational-wave propagation"*
LIGO-Virgo-KAGRA Collaboration; *in preparation*
Member of analysis and paper writing teams

20. **25+ Collaboration Papers inside the LIGO-Virgo-KAGRA Collaboration** [see complete list here]