

# Aditya Vijaykumar

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PAPERS  
(SHORT  
AUTHORLIST)

25. Hui Tong et al. (including **Aditya Vijaykumar**)  
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24. Colm Talbot et al. (including **Aditya Vijaykumar**)  
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Submitted to CQG, [arXiv:2508.11091](#).
23. Avinash Tiwari, Prolay Chanda, Shasvath J. Kapadia, Susmita Adhikari, **Aditya Vijaykumar**, Basudeb Dasgupta  
*Profiling Dark Matter Spikes with Gravitational Waves from Accelerated Binaries*  
Submitted to PRL, [arXiv:2508.03803](#).
22. Andris Doroszmai, Isobel M. Romero-Shaw, **Aditya Vijaykumar**, Silvia Toonen, et al.  
*Hierarchical Triples vs. Globular Clusters: Binary black hole merger eccentricity distributions compete and evolve with redshift*  
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21. Avinash Tiwari, **Aditya Vijaykumar**, Shasvath J. Kapadia, Shrobana Ghosh, Alex B. Nielsen  
*A pipeline to search for signatures of line-of-sight acceleration in gravitational wave signals produced by compact binary coalescences*  
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18. Alexandra G. Hanselman, **Aditya Vijaykumar**, Maya Fishbach, Daniel E. Holz  
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16. **Aditya Vijaykumar**, Alexandra G. Hanselman, Michael Zevin  
*Consistent eccentricities for gravitational wave astronomy: Resolving discrepancies between astrophysical simulations and waveform models*  
[ApJ 969 132](#), [arXiv:2402.07892](#).
15. Mukesh Kumar Singh, Shasvath J. Kapadia, **Aditya Vijaykumar**, Parameswaran Ajith  
*Impact of higher harmonics of gravitational radiation on the population inference of binary black holes*  
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14. Kruthi Krishna, **Aditya Vijaykumar**, Apratim Ganguly, et al  
*Accelerated parameter estimation in Bilby with relative binning*  
[arXiv:2312.06009](#).

13. **Aditya Vijaykumar**, Maya Fishbach, Susmita Adhikari, Daniel E. Holz  
*Inferring host galaxy properties of LIGO-Virgo-KAGRA's black holes*  
[ApJ 972 157](#), [arXiv:2312.03316](#).
12. Divyajyoti, N.V. Krishnendu, Muhammed Saleem, Marta Colleoni, **Aditya Vijaykumar**, K.G. Arun, Chandra Kant Mishra  
*Effect of double spin-precession and higher harmonics on spin-induced quadrupole moment measurements*  
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11. Avinash Tiwari, **Aditya Vijaykumar**, Shasvath J. Kapadia, Giacomo Fragione, Sourav Chatterjee  
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*Rapid Identification and Classification of Eccentric Gravitational Wave Inspirals with Machine Learning*  
Submitted to PRD, [arXiv:2302.00666](#).
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*Probing lens-induced gravitational-wave birefringence as a test of general relativity*  
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7. Bikram Keshari Pradhan, **Aditya Vijaykumar**, Debarati Chatterjee  
*Impact of updated Multipole Love and f-Love Universal Relations in context of Binary Neutron Stars*  
[Phys. Rev. D 107, 023010](#), [arXiv:2210.09425](#).
6. **Aditya Vijaykumar**, Shasvath J. Kapadia, Parameswaran Ajith  
*Can a binary neutron star merger in the vicinity of a supermassive black hole enable a detection of a post-merger gravitational wave signal?*  
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5. **Aditya Vijaykumar**, Ajit Kumar Mehta, Apratim Ganguly  
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4. Sumit Kumar, **Aditya Vijaykumar**, Alexander H. Nitz  
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3. M. Saleem et al. (including **Aditya Vijaykumar**)  
*The Science Case for LIGO-India*  
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2. **Aditya Vijaykumar**, M. V. S. Saketh, Sumit Kumar, Parameswaran Ajith, Tirthankar Roy Choudhury  
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AUTHORLIST,  
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*Constraints on the time variation of the gravitational constant using gravitational wave observations of binary neutron stars*,  
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*In press*: [phys.org](#).
7. Abac et al. (LIGO Scientific, Virgo, and KAGRA Collaborations) [**Paper Writing Team Lead**]  
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6. Abac et al. (LIGO Scientific, Virgo, and KAGRA Collaborations)  
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1. P. Virtanen *et al.* (including **Aditya Vijaykumar** as *SciPy 1.0 Contributor*)  
*SciPy 1.0—Fundamental Algorithms for Scientific Computing in Python*,  
[Nat Methods 17, 261–272 \(2020\)](#), [arXiv:1907.10121](#).