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List of Publications

Preprint

- [1] Barak Zackay, Tejaswi Venumadhav, Javier Roulet, **Liang Dai**, and Matias Zaldarriaga, *Detecting Gravitational Waves in Data with Non-Gaussian Noise*, [arXiv:1908.05644].
- [2] **Liang Dai** and Jordi Miralda-Escudé, *Gravitational Lensing Signatures of Axion Dark Matter Minihalos in Highly Magnified Stars*, [arXiv:1908.01773], submitted to ApJ.
- [3] Tejaswi Venumadhav, Barak Zackay, Javier Roulet, **Liang Dai**, and Matias Zaldarriaga, *New Binary Black Hole Mergers in the Second Observing Run of Advanced LIGO and Advanced Virgo*, [arXiv:1904.07214].
- [4] **Liang Dai**, Tejaswi Venumadhav, and Barak Zackay, *Parameter Estimation for GW170817 using Relative Binning*, [arXiv:1806.08793], submitted to PRD.
- [5] Barak Zackay, **Liang Dai**, and Tejaswi Venumadhav, *Relative Binning and Fast Likelihood Evaluation for Gravitational Wave Parameter Estimation*, [arXiv:1806.08792], submitted to PRL.
- [6] **Liang Dai** and Tejaswi Venumadhav, *On the waveforms of gravitationally lensed gravitational waves*, [arXiv:1702.04724].

Journal Published

- [1] Johan Samsing, Tejaswi Venumadhav, **Liang Dai**, Irvin Martinez, Aldo Batta, Martin Lopez, Enrico Ramirez-Ruiz, and Kyle Kremer, *Probing the Black Hole Merger History in Clusters using Stellar Tidal Disruptions*, *Phys.Rev. D* **100** (2019) no.4, 043009 .
- [2] Alexander Kaurov, **Liang Dai**, Tejaswi Venumadhav, Jordi Miralda-Escudé, and Brenda Frye, *Highly Magnified Stars in Lensing Clusters: New Evidence in a Galaxy Lensed by MACS J0416.1-2403*, *Astrophys. J.* **880**:58 (2019).
- [3] Javier Roulet, **Liang Dai**, Tejaswi Venumadhav, Barak Zackay, and Matias Zaldarriaga, *Template Bank for Compact Binary Coalescence Searches in Gravitational Wave Data: A General Geometric Placement Algorithm*, *Phys. Rev. D* **99** (2019) no.12, 123022.
- [4] Barak Zackay, Tejaswi Venumadhav, **Liang Dai**, Javier Roulet, and Matias Zaldarriaga, *A Highly Spinning and Aligned Binary Black Hole Merger in the Advanced LIGO First Observing Run*, *Phys. Rev. D* **100** (2019) 023007.
- [5] Tejaswi Venumadhav, Barak Zackay, Javier Roulet, **Liang Dai**, and Matias Zaldarriaga, *A New Search Pipeline for Compact Binary Mergers: Results for Binary Black Holes in the First Observing Run of Advanced LIGO*, *Phys. Rev. D* **100** (2019) 023011.
- [6] David Radice and **Liang Dai**, *Multimesenger Parameter Estimation of GW170817*, *Eur. Phys. J. A* (2019) 55: 50.

- [7] Wenzer Qin, Kimberly K. Boddy, Marc Kamionkowski, and **Liang Dai**, *Pulsar-timing arrays, astrometry, and gravitational waves*, Phys. Rev. **D 99** (2019) 063002.
- [8] **Liang Dai**, Shun-Sheng Li, Barak Zackay, Shude Mao, and Youjun Lu, *Detecting Lensing-Induced Diffraction in Astrophysical Gravitational Waves*, Phys. Rev. **D 98** (2018) 104029.
- [9] Tejaswi Venumadhav, **Liang Dai**, Alexander Kaurov, and Matias Zaldarriaga, *Heating of the intergalactic medium by the cosmic microwave background during cosmic dawn*, Phys. Rev. **D 98** (2018) 103513.
- [10] **Liang Dai**, Tejaswi Venumadhav, Alexander Kaurov, and Jordi Miralda-Escudé, *Probing Dark Matter Subhalos in Galaxy Clusters Using Highly Magnified Stars*, Astrophys. J. **867** (2018) no.1, 24.
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- [13] **Liang Dai** and Wenbin Lu, *Probing motion of fast radio burst sources by timing strongly lensed repeaters*, Astrophys. J. **847** (2017) no.1, 19.
- [14] **Liang Dai**, Tejaswi Venumadhav and Kris Sigurdson, *The effect of lensing magnification on the apparent distribution of black hole mergers*, Phys. Rev. **D 95** (2017) 044011.
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