

List of Publications

Dr. Jessica McIver

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*Indicates refereed publications

1. *The impact of transient noise on the parameter estimation of gravitational waves from binary black holes.* J. McIver et al. In prep.
2. * *GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral.* B.P. Abbott et al. PRL 119, 161101 (2017) - PAPER WRITING TEAM MEMBER
3. * *Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914.* B. P. Abbott et al. Class. Quantum Grav. 33 134001 (2016) - LEAD AUTHOR
4. * *Effects of transients in LIGO suspensions on searches for gravitational waves.* M. Walker, T. D. Abbott, S. M. Aston, G. González, D. M. Macleod, J. McIver, et al. Accepted by the Review of Scientific Instruments. (2017)
5. *Effects of Data Quality Vetoes on a Search for Compact Binary Coalescences in Advanced LIGO's First Observing Run.* B.P. Abbott et al. Submitted to Class. Quantum Grav. (2017)
6. * *Observation of Gravitational Waves from a Binary Black Hole Merger.* B. P. Abbott et al. PRL 116, 061102 (2016)
7. * *Upper limits on the rates of binary neutron star and neutron-star-black-hole mergers from Advanced LIGO's first observing run.* B.P. Abbott et al. Ap. J. Letters 832, 2 (2016)
8. * *Multi-messenger Observations of a Binary Neutron Star Merger.* B.P. Abbott et al. Ap. J. Letters 848, 2. (2017)
9. * *Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A.* B.P. Abbott et al. Ap. J. Letters 848, 2 (2017)
10. * *A gravitational-wave standard siren measurement of the Hubble constant.* B.P. Abbott et al. Nature doi:10.1038/nature24471 (2017)
11. *GW170608: Observation of a 19-solar-mass Binary Black Hole Coalescence.* B.P. Abbott et al. Submitted. arXiv 1711.05578 (2017)
12. * *GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence.* B.P. Abbott et al. PRL 119, 141101 (2017)
13. * *GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2.* B. P. Abbott et al. PRL 118, 221101 (2017)
14. * *GW151226: Observation of Gravitational Waves from a 22 Solar-mass Binary Black Hole Coalescence.* B. P. Abbott et al. PRL 116, 241103 (2016)
15. * *Binary Black Hole Mergers in the first Advanced LIGO Observing Run.* B.P. Abbott et al. Phys. Rev. X 6, 041015 (2016)
16. * *Upper limits on the rates of binary neutron star and neutron-star-black-hole mergers from Advanced LIGO's first observing run.* B.P. Abbott et al. Ap. J. Letters 832, 2. (2016)

17. * *All-sky search for short gravitational-wave bursts in the first Advanced LIGO run.* B.P. Abbott et al. Phys. Rev. D 95, 042003 (2017)
 18. * *Observing gravitational-wave transient GW150914 with minimal assumptions.* B.P. Abbott et al. Phys. Rev. D 93, 122004 (2016)
 19. * *GW150914: First results from the search for binary black hole coalescence with Advanced LIGO.* B.P. Abbott et al. Phys. Rev. D 93, 122003 (2016)
 20. * *Improving the data quality of Advanced LIGO based on early engineering run results.* L. Nuttall et al. Class. Quant. Grav. 32 (2015)
 21. * *Characterization of the LIGO detectors during their sixth science run.* J. Aasi, et. al. Class. Quant. Grav. 32 115012 (2015)
 22. * *Seismic isolation of Advanced LIGO: Review of strategy, instrumentation and performance.* F. Matichard et al. Class. Quant. Grav. 32 185003 (2015)
 23. * *Data Quality Studies of Enhanced Interferometric Gravitational Wave Detectors.* Jessica McIver, for the LIGO Scientific Collaboration and the Virgo Collaboration. Class. Quantum Grav. 29 124010 (2012)
 24. * *All-sky search for gravitational-wave bursts in the second joint LIGO-Virgo run.* J. Abadie et al. Phys. Rev. D 85, 122007 (2012)
 25. * *Search for gravitational waves from binary black hole inspiral, merger, and ring-down in LIGO- Virgo data from 2009-2010.* J. Aasi et. al. Phys. Rev. D 87, 022002 (2012)
 26. * *Search for gravitational waves from low mass compact binary coalescence in LIGO's sixth science run and Virgo's science runs 2 and 3.* J. Abadie et al. Phys. Rev. D 85, 082002 (2012)
 27. * *A hierarchical method for vetoing noise transients in gravitational-wave detectors.* Joshua R Smith, Thomas Abbott, Eiichi Hirose, Nicolas Leroy, Duncan Macleod, Jessica McIver, Peter Saulson, Peter Shawhan. Class. Quantum Grav. 28 235005 (2011)
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28. *Search for post-merger gravitational waves from the remnant of the binary neutron star merger GW170817.* B.P. Abbott et al. Submitted. (2017)
29. *GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences.* B.P. Abbott et al. Submitted. (2017)
30. *First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data.* B.P. Abbott et al. Submitted. (2017)
31. *First search for nontensorial gravitational waves from known pulsars.* B.P. Abbott et al. Submitted. (2017)
32. * *First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data.* B.P. Abbott et al. Accepted for publication in Phys. Rev. D. (2017)

33. * *Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory.* Accepted for publication in *Ap. J. Letters* (2017)
34. * *On the Progenitor of Binary Neutron Star Merger GW170817.* B.P. Abbott et al. Accepted for publication in *Ap. J. Letters* (2017)
35. * *Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817.* B.P. Abbott et al. Accepted for publication in *Ap. J. Letters* (2017)
36. * *All-sky Search for Periodic Gravitational Waves in the O1 LIGO Data.* B.P. Abbott et al. *Phys. Rev. D* 96, 062002 (2017)
37. * *Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-Based Cross-Correlation Search in Advanced LIGO Data.* B.P. Abbott et al. *Ap. J.* 847, 1 (2017)
38. * *Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO.* B.P. Abbott et al. *Phys. Rev. D* 96, 022001 (2017)
39. * *Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model.* B.P. Abbott et al. *Phys. Rev. D* 95, 122003 (2017)
40. * *Quantum correlation measurements in interferometric gravitational wave detectors.* D. V. Martynov et al. *Phys. Rev. A* **95**, 043831 (2017)
41. * *First search for gravitational waves from known pulsars with Advanced LIGO.* B.P. Abbott et al. *Ap. J.* 389, 1 (2017)
42. * *Directional limits on persistent gravitational waves from Advanced LIGO's first observing run.* B.P. Abbott et al. *PRL* 118, 121102 (2017)
43. * *Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run.* B.P. Abbott et al. *PRL* 118, 121101 (2017). Erratum *PRL* 119, 029901 (2017)
44. * *Search for Gravitational Waves Associated with Gamma-Ray Bursts During the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B.* B.P. Abbott et al. *Ap. J.* 841, 2 (2017)
45. * *Effects of waveform model systematics on the interpretation of GW150914.* B.P. Abbott et al. *Class. Quantum Grav.* 34, 10 (2017)
46. * *Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544.* B.P. Abbott et al. *Phys. Rev. D* 95, 082005 (2017)
47. * *The basic physics of the binary black hole merger GW150914.* B.P. Abbott et al. *Annalen der Physik*, Volume 529, Issue 1-2 (2017)
48. * *Exploring the Sensitivity of Next Generation Gravitational Wave Detectors.* B.P. Abbott et al. *CQG* 34, 4 (2017)
49. * *Directly comparing GW150914 with numerical solutions of Einstein's equations for binary black hole coalescence.* B.P. Abbott et al. *Phys. Rev. D* 94, 064035 (2016)
50. * *An improved analysis of GW150914 using a fully spin-precessing waveform model.* B.P. Abbott et al. *Phys. Rev. X* 6, 041014 (2016)

51. * *Comprehensive All-sky Search for Periodic Gravitational Waves in the Sixth Science Run LIGO Data.* B.P. Abbott et al. Phys. Rev. D 94, 042002 (2016)
52. * *A First Targeted Search for Gravitational-Wave Bursts from Core-Collapse Supernovae in Data of First-Generation Laser Interferometer Detectors.* B.P. Abbott et al. Phys. Rev. D 94, 102001 (2016)
53. * *Search for transient gravitational waves in coincidence with short duration radio transients during 2007-2013.* B.P. Abbott et al. Phys. Rev. D 93, 122008 (2016)
54. * *The Sensitivity of the Advanced LIGO Detectors at the Beginning of Gravitational Wave Astronomy.* D.V. Martynov et al. Phys. Rev. D 93, 112004 (2016)
55. * *Localization and broadband follow-up of the gravitational-wave transient GW150914.* B.P. Abbott et al. Ap. J. Letters 826, 13 (2016)
56. * *Supplement: Localization and broadband follow-up of the gravitational-wave transient GW150914.* B.P. Abbott et al. Ap. J. S. 225, 8 (2016)
57. * *High-energy Neutrino follow-up search of Gravitational Wave Event GW150914 with ANTARES and IceCube.* B.P. Abbott et al. Phys. Rev. D 93, 122010 (2016)
58. *Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914.* B.P. Abbott et al. arXiv:1602.03845 (2016)
59. * *The Rate of Binary Black Hole Mergers Inferred from Advanced LIGO Observations Surrounding GW150914.* B.P. Abbott et al. Ap. J. Letters 833, 1 (2016)
60. * *GW150914: Implications for the stochastic gravitational wave background from binary black holes.* B.P. Abbott et al. Phys. Rev. Lett. 116, 131102 (2016)
61. * *Astrophysical Implications of the Binary Black-Hole Merger GW150914.* B.P. Abbott et al. ApJL, 818, 22 (2016)
62. * *Tests of general relativity with GW150914.* B.P. Abbott et al. Phys. Rev. Lett. 116, 221101 (2016)
63. * *GW150914: The Advanced LIGO Detectors in the Era of First Discoveries.* B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. Lett. 116, 131103 (2016)
64. * *Supplement: The Rate of Binary Black Hole Mergers Inferred from Advanced LIGO Observations Surrounding GW150914.* B.P. Abbott et al. Ap. J. S. 227, 14, 2016
65. * *Properties of the Binary Black Hole Merger GW150914.* B.P. Abbott et al. Phys. Rev. Lett. 116, 241102 (2016)
66. * *A search of the Orion spur for continuous gravitational waves using a "loosely coherent" algorithm on data from LIGO interferometers.* J Aasi et al. Phys. Rev. D 93, 042006 (2016)
67. * *First low frequency all-sky search for continuous gravitational wave signals.* J Aasi et al. Phys. Rev. D 93, 042007 (2016)
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70. * *Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors.* J. Aasi et al. Phys. Rev. D 91, 022003 (2015)
71. * *Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data.* J. Aasi et al. Phys. Rev. D 91, 022004 (2015)
72. * *Directed search for gravitational waves from Scorpius X-1 with initial LIGO data.* J. Aasi et al. Phys. Rev. D 91, 062008 (2015)
73. * *Advanced LIGO.* J. Aasi et al. Class. Quant. Grav. 32, 7 (2015)
74. * *Searches for continuous gravitational waves from nine young supernova remnants.* J. Aasi et al. ApJ 813, 1 (2015)
75. * *The NINJA-2 project: Detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations.* J. Aasi et al. Class. Quantum Grav. 31, 115004 (2014)
76. * *Application of a Hough search for continuous gravitational waves on data from the fifth LIGO science run.* J. Aasi et al. Class. Quantum Grav. 31, 085014 (2014)
77. * *Constraints on cosmic strings from the LIGO-Virgo gravitational-wave detectors.* J. Aasi et al. Phys. Rev. Lett. 112, 131101 (2014)
78. * *First Searches for Optical Counterparts to Gravitational-wave Candidate Events.* J. Aasi et al. ApJS 211, 7 (2014)
79. * *Gravitational Waves from Known Pulsars: Results from the Initial Detector Era.* J. Aasi et al. ApJS 752, 2 (2014)
80. * *Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube.* M. G. Aartsen et al. Phys. Rev. D 90, 102002 (2014)
81. * *Improved upper limits on the stochastic gravitational-wave background from 2009--2010 LIGO and Virgo data.* J. Aasi et al. Phys. Rev. Letters. (October 2014)
82. * *First all-sky search for continuous gravitational waves from unknown sources in binary systems.* J. Aasi et al. Phys. Rev. D 90, 062010 (2014)
83. * *Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO 600, LIGO, and Virgo detectors.* J. Aasi et al. Phys. Rev. D 89, 122004 (2014)
84. * *Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run.* J. Aasi et al. Phys. Rev. D 89, 122003 (2014)
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90. * *A directed search for continuous Gravitational Waves from the Galactic Center.* J. Aasi et al. Phys. Rev. D 88, 102002 (2013)
91. * *Search for long-lived gravitational-wave transients coincident with long gamma-ray bursts.* J. Aasi et al. Phys. Rev. D 88, 122004 (2013)
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93. * *Implications for the Origin of GRB 051103 from LIGO Observations.* J. Abadie et al. ApJ 755 2 (2012)
94. * *The characterization of Virgo data and its impact on gravitational-wave searches.* J. Aasi et al. Class. Quantum Grav. 29 155002 (2012)
95. * *Swift Follow-Up Observations of Candidate Gravitational-Wave Transient Events.* P. A. Evans et al. ApJ 203 28 (2012)
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