List of Publications

Dr. Jessica McIver

Dated February 2017

*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. *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. Submitted to CQG. (2017)
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. * *Observation of Gravitational Waves from a Binary Black Hole Merger*. B. P. Abbott et al. PRL 116, 061102 (2016)
5. * *GW151226: Observation of Gravitational Waves from a 22 Solar-mass Binary Black Hole Coalescence*. B. P. Abbott et al. PRL 116, 241103 (2016)
6. * *Binary Black Hole Mergers in the first Advanced LIGO Observing Run*. B. P. Abbott at al. Phys. Rev. X 6, 041015 (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. * *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)
9. * *Observing gravitational-wave transient GW150914 with minimal assumptions*. B. P. Abbott et al. Phys. Rev. D 93, 122004 (2016)
10. * *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)
11. * *Improving the data quality of Advanced LIGO based on early engineering run results*. L. Nuttall et al. Class. Quant. Grav. 32 (2015)
12. * *Characterization of the LIGO detectors during their sixth science run*. J. Aasi, et. al. Class. Quant. Grav. 32 115012 (2015)
13. * *Seismic isolation of Advanced LIGO: Review of strategy, instrumentation and performance*. F. Matichard et al. Class. Quant. Grav. 32 185003 (2015)
14. * *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)
15. * *All-sky search for gravitational-wave bursts in the second joint LIGO-Virgo run*. J. Abadie et al. Phys. Rev. D 85, 122007 (2012)
16. * *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)

17. * *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.* (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 85, 082002 (2012)

18.* *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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19. *Quantum correlation measurements in interferometric gravitational wave detectors*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

20. *First search for gravitational waves from known pulsars with Advanced LIGO*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

21. *Directional limits on persistent gravitational waves from Advanced LIGO's first observing run*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

22. *Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

23. *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. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

24. *Effects of waveform model systematics on the interpretation of GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

25. *Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Submitted.

26. * *The basic physics of the binary black hole merger GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Annalen der Physik, Volume 529, Issue 1-2 (2017)

27. * *Exploring the Sensitivity of Next Generation Gravitational Wave Detectors*. B.P. Abbott et al. CQG 34, 4 (2017)

28. * *Directly comparing GW150914 with numerical solutions of Einstein's equations for binary black hole coalescence*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 94, 064035 (2016)

29. * *An improved analysis of GW150914 using a fully spin-precessing waveform model*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. X 6, 041014 (2016)

30. * *Comprehensive All-sky Search for Periodic Gravitational Waves in the Sixth Science Run LIGO Data*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 94, 042002 (2016)

31. * *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. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 94, 102001 (2016)

32. * *Search for transient gravitational waves in coincidence with short duration radio transients during 2007-2013*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 93, 122008 (2016)

33. * *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)

34. * *Localization and broadband follow-up of the gravitational-wave transient GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJL, 826, 13 (2016)

35. * *Supplement: Localization and broadband follow-up of the gravitational-wave transient GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJS, 225, 8 (2016)

36. * *High-energy Neutrino follow-up search of Gravitational Wave Event GW150914 with ANTARES and IceCube*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 93, 122010 (2016)

37. Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) arXiv: 1602.03845 (2016)

38. * *The Rate of Binary Black Hole Mergers Inferred from Advanced LIGO Observations Surrounding GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJL, 833, 1 (2016)

39. * *GW150914: Implications for the stochastic gravitational wave background from binary black holes*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. Lett. 116, 131102 (2016)

40. * *Astrophysical Implications of the Binary Black-Hole Merger GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJL, 818, 22 (2016)

41. * *Tests of general relativity with GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. Lett. 116, 221101 (2016)

42. * *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)

43. * *Supplement: The Rate of Binary Black Hole Mergers Inferred from Advanced LIGO Observations Surrounding GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJS, 227, 14, 2016

44. * *Properties of the Binary Black Hole Merger GW150914*. B.P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. Lett. 116, 241102 (2016)

45. * *A search of the Orion spur for continuous gravitational waves using a "loosely coherent" algorithm on data from LIGO interferometers*. J Aasi et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 93, 042006 (2016)

46. * *First low frequency all-sky search for continuous gravitational wave signals*. J Aasi et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 93, 042007 (2016)

47. * *An all-sky search for long-duration gravitational wave transients with LIGO*. B. P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 93, 042005 (2016)

48. * *Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project*. B. P. Abbott et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 93, 042005 (2016)

49. * *Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors*. J. Aasi et al. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 91, 022003 (2015)

50. * *Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data*. J. Aasi et al. (LIGO Scientific Collaboration and Virgo Collaboration) Phys. Rev. D 91, 022004 (2015)

51. * *Directed search for gravitational waves from Scorpius X-1 with initial LIGO data*. J. Aasi et al. (LIGO Scientific Collaboration, Virgo Collaboration) Phys. Rev. D 91, 062008 (2015)

52. * *Advanced LIGO*. J. Aasi et al. (The LIGO Scientific Collaboration) Class. Quant. Grav. 32, 7 (2015)

53. * *Searches for continuous gravitational waves from nine young supernova remnants*. J. Aasi et al. ApJ 813, 1 (2015)

54. * *The NINJA-2 project: Detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations*. J. Aasi *et al.* (The LIGO Scientific Collaboration and the Virgo Collaboration) Class. Quantum Grav. 31, 115004 (2014)

55. * *Application of a Hough search for continuous gravitational waves on data from the fifth LIGO science run*. J. Aasi *et al.* (The LIGO Scientific Collaboration and the Virgo Collaboration) Class. Quantum Grav. 31, 085014 (2014)

56. * *Constraints on cosmic strings from the LIGO-Virgo gravitational-wave detectors*. J. *Aasi et al.* (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. Lett. 112, 131101 (2014)

57. * *First Searches for Optical Counterparts to Gravitational-wave Candidate Events*. J. Aasi *et al.* (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJS 211, 7 (2014)

58. * *Gravitational Waves from Known Pulsars: Results from the Initial Detector Era*. J. Aasi *et al.* (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJS 752, 2 (2014)

59. ***** *Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube*. M. G. Aartsen et al. (The IceCube Collaboration, the LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 90, 102002 (2014)

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61. * *First all-sky search for continuous gravitational waves from unknown sources in binary systems*. J. Aasi *et al*. (LIGO Scientific Collaboration and Virgo Collaboration) Phys. Rev. D 90, 062010 (2014)

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63. * *Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run*. J. Aasi *et al*. (LIGO Scientific Collaboration and Virgo Collaboration) Phys. Rev. D 89, 122003 (2014)

64. * *Search for Gravitational Waves Associated with γ-ray Bursts Detected by the Interplanetary Network*. J. Aasi *et al*. (LIGO Scientific Collaboration, Virgo Collaboration, and IPN Collaboration) Phys. Rev. Lett. 113, 011102 (2014)

65. * *Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005–2010*. J. Aasi *et al*. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 89, 102006 (2014)

66. * *Einstein@Home all-sky search for periodic gravitational waves in LIGO S5 data*. J. Aasi *et al*. (The LIGO Scientific Collaboration) Phys. Rev. D 87, 042001 (2013)

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71.* *Search for Gravitational Waves Associated with Gamma-Ray Bursts During LIGO Science Run 6 and Virgo Science Runs 2 and 3*. J. Abadie *et al*. (The LIGO Scientific Collaboration and the Virgo Collaboration) ApJ 760, 12 (2012)

72.* *Implications for the Origin of GRB 051103 from LIGO Observations*. J. Abadie *et al*. (The LIGO Scientific Collaboration) ApJ 755 2 (2012)

73.* *The characterization of Virgo data and its impact on gravitational-wave searches*. J Aasi *et al*. (The LIGO Scientific Collaboration and the Virgo Collaboration) Class. Quantum Grav. 29 155002 (2012)

74.* *Swift Follow-Up Observations of Candidate Gravitational-Wave Transient Events*. P. A. Evans *et al*. ApJ 203 28 (2012)

75.* *Search for gravitational waves from intermediate mass binary black holes.* J. Abadie *et al*. (The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 85, 102004 (2012)

76.* *Upper limits on a stochastic gravitational-wave background using LIGO and Virgo interferometers at 600–1000 Hz*. J. Abadie *et al*. ((The LIGO Scientific Collaboration and the Virgo Collaboration) Phys. Rev. D 85, 122001 (2012)