

Appointments:

- ▷ **Current Position:** Professor of Physics and Astronomy, Louisiana State University, from August 2009.
- ▷ **Current Position:** Observatory Head, LIGO Livingston, California Institute of Technology, from November 2006.

- ▷ Associate Professor, Department of Physics and Astronomy, Louisiana State University, 2005–2009
- ▷ Chief Scientist at LIGO Livingston, 2004–2006.
- ▷ Visiting Scholar, Ginzton Laboratory, Stanford University, 2003–2008.
- ▷ Assistant Professor, Department of Physics and Astronomy, Louisiana State University, 1999–2005.
- ▷ Research Scientist, MIT Center for Space Research, 1998–1999.
- ▷ Senior Research Associate, JILA (University of Colorado), 1997–1998.
- ▷ Research Associate, JILA. 1995–1997.
- ▷ Graduate Research Assistant, MIT Physics Department, 1987–1995.
- ▷ Technical Instructor, MIT Physics Department, 1986–1987.

Education:

Massachusetts Institute of Technology
Cambridge, MA

S.B. in Physics, June 1986
Ph.D. in Physics, June 1995

JILA/University of Colorado
Boulder, CO

Postdoctoral work in Physics, 1995–1997

Scientific societies and awards:

- ▷ *Fellow*, American Physical Society (APS), elected 2009.
- ▷ *Member*, The American Association for the Advancement of Science (AAAS), the American Astronomical Society (AAS), the International Society on General Relativity & Gravitation (ISGRG), and the International Astronomical Union (IAU).
- ▷ Special Breakthrough Prize in Fundamental Physics, awarded in 2016 to Ronald W. P. Drever, Kip S. Thorne and Rainer Weiss and 1012 contributors to the discovery.
- ▷ Gruber Foundation 2016 Cosmology Prize, awarded to Ronald Drever, Kip Thorne, and Rainer Weiss, along with the entire Laser Interferometer Gravitational-Wave Observatory (LIGO) discovery team for the first detection of gravitational waves.
- ▷ 2017 UK Royal Astronomical Society (RAS) Group Achievement Award in Astronomy to the Laser Interferometer Gravitational Wave Observatory (LIGO) team.
- ▷ 2017 Albert Einstein Medal, from the Albert Einstein Society (Bern), to the LIGO Scientific Collaboration and the Virgo Collaboration.
- ▷ 2017 Princess of Asturias Award in Technical and Scientific Research to Rainer Weiss, Kip S. Thorne, Barry C. Barish and the LIGO Scientific Collaboration.
- ▷ 2019 Current Achievement Trophy awarded by the Smithsonian's National Air and Space Museum to the LIGO Scientific Collaboration.

Activities:

- ▷ Research related to the observation of gravitational waves from astrophysical sources at the Laser Interferometer Gravitational-wave Observatory (LIGO); Observatory head of LIGO Livingston.

- ▷ Chair of LIGO Science Education Center Partnership, which consists of collaborators at LIGO, Southern University, the Baton Rouge Area Foundation, and the San Francisco Exploratorium. The partnership carries out education and outreach activities in Louisiana relevant to LIGO science.
- ▷ Member of the LIGO Scientific Collaboration (LSC) Executive Committee; Past chair of the LSC's Suspension, Seismic Isolation and Thermal Noise Working Group.
- ▷ Member of the LIGO Laboratory's Operations Management Team (OMT) and Executive Committee.

Publications:

- [1] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration) and Shandara, S. Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. *Physical Review Letters*, 121(23), DEC 7 2018. ISSN 0031-9007. doi: 10.1103/PhysRevLett.121.231103.
- [2] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). GW170817: Measurements of Neutron Star Radii and Equation of State. *Physical Review Letters*, 121(16), OCT 15 2018. ISSN 0031-9007. doi: 10.1103/PhysRevLett.121.161101.
- [3] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). Constraints on cosmic strings using data from the first Advanced LIGO observing run. *Physical Review D*, 97(10), MAY 8 2018. ISSN 2470-0010. doi: 10.1103/PhysRevD.97.102002.
- [4] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). Full band all-sky search for periodic gravitational waves in the O1 LIGO data. *Physical Review D*, 97(10), MAY 11 2018. ISSN 2470-0010. doi: 10.1103/PhysRevD.97.102003.
- [5] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. *Physical Review Letters*, 120(20), MAY 16 2018. ISSN 0031-9007. doi: 10.1103/PhysRevLett.120.201102.
- [6] P. B. Covas, A. Effler, E. Goetz, P. M. Meyers, A. Neunzert, M. Oliver, B. L. Pearlstone, V. J. Roma, R. M. S. Schofield, V. B. Adya, P. Astone, S. Biscoveanu, T. A. Callister, N. Christensen, A. Colla, E. Coughlin, M. W. Coughlin, S. G. Crowder, S. E. Dwyer, H. B. Eggenstein, S. Hourihane, S. Kandhasamy, W. Liu, A. P. Lundgren, A. Matas, R. McCarthy, J. McIver, G. Mendell, R. Ormiston, C. Palomba, M. A. Papa, O. J. Piccinni, K. Rao, K. Riles, L. Sammut, S. Schlassa, D. Sigg, N. Strauss, D. Tao, K. A. Thorne, E. Thrane, S. Trembath-Reichert, B. P. Abbott, R. Abbott, T. D. Abbott, C. Adams, R. X. Adhikari, A. Ananyeva, S. Appert, K. Arai, S. M. Aston, C. Austin, S. W. Ballmer, D. Barker, B. Barr, L. Barsotti, J. Bartlett, I. Bartos, J. C. Batch, M. Bejger, A. S. Bell, J. Betzwieser, G. Billingsley, J. Birch, S. Biscans, C. Biwer, C. D. Blair, R. M. Blair, R. Bork, A. F. Brooks, H. Cao, G. Ciani, F. Clara, P. Clearwater, S. J. Cooper, P. Corban, S. T. Countryman, M. J. Cowart, D. C. Coyne, A. Cumming, L. Cunningham, K. Danzmann, C. F. Da Silva Costa, E. J. Daw, D. DeBra, R. T. DeRosa, R. DeSalvo, K. L. Dooley, S. Doravari, J. C. Driggers, T. B. Edo, T. Etzel, M. Evans, T. M. Evans, M. Factourovich, H. Fair, A. Fernandez Galiana, E. C. Ferreira, R. P. Fisher, H. Fong, R. Frey, P. Fritschel, V. V. Frolov, P. Fulda, M. Fyffe, B. Gateley, J. A. Giaime, K. D. Giardino, R. Goetz, B. Goncharov, S. Gras, C. Gray, H. Grote, K. E. Gushwa, E. K. Gustafson, R. Gustafson, E. D. Hall, G. Hammond, J. Hanks, J. Hanson, T. Hardwick, G. M. Harry, M. C. Heintze, A. W. Heptonstall, J. Hough, R. Inta, K. Izumi, R. Jones, S. Karki, M. Kasprzack, S. Kaufer, K. Kawabe, R. Kennedy, N. Kijbunchoo, W. Kim, E. J. King, P. J. King, J. S. Kissel, W. Z. Korth, G. Kuehn, M. Landry, B. Lantz, M. Laxen, J. Liu, N. A. Lockerbie, M. Lormand, M. MacInnis, D. M. Macleod, S. Marka, Z. Marka, A. S. Markosyan, E. Maros, P. Marsh, I. W. Martin, D. V. Martynov, K. Mason, T. J. Massinger, F. Matichard, N. Mavalvala, D. E. McClelland, S. McCormick, L. McCuller, G. McIntyre, T. McRae, E. L. Merilh, J. Miller, R. Mittleman, G. Mo, K. Mogushi, D. Moraru, G. Moreno, G. Mueller, N. Mukund, A. Mullavey, J. Munch, T. J. N. Nelson, P. Nguyen, L. K. Nuttall, J. Oberling, O. Oktavia, P. Oppermann, Richard J. Oram, B. O'Reilly, D. J. Ottaway, H. Overmier, J. R. Palamos, W. Parker, A. Pele, S. Penn, C. J. Perez, M. Phelps, V. Pierro, I. Pinto, M. Principe, L. G. Prokhorov, O. Puncken,

- V. Quetschke, E. A. Quintero, H. Radkins, P. Raffai, K. E. Ramirez, S. Reid, D. H. Reitze, N. A. Robertson, J. G. Rollins, C. L. Romel, J. H. Romie, M. P. Ross, S. Rowan, K. Ryan, T. Sadecki, E. J. Sanchez, L. E. Sanchez, V. Sandberg, R. L. Savage, D. Sellers, D. A. Shaddock, T. J. Shaffer, B. Shapiro, D. H. Shoemaker, B. J. J. Slagmolen, B. Smith, J. R. Smith, B. Sorazu, A. P. Spencer, A. Staley, K. A. Strain, L. Sun, D. B. Tanner, J. D. Tasson, R. Taylor, M. Thomas, P. Thomas, K. Toland, C. I. Torrie, G. Traylor, M. Tse, D. Tuyenbayev, G. Vajente, G. Valdes, A. A. van Veggel, A. Vecchio, P. J. Veitch, K. Venkateswara, T. Vo, C. Vorvick, M. Wade, M. Walker, R. L. Ward, J. Warner, B. Weaver, R. Weiss, P. Wessels, B. Willke, C. C. Wipf, J. Wofford, J. Worden, H. Yamamoto, C. C. Yancey, Hang Yu, Haocun Yu, L. Zhang, S. Zhu, M. E. Zucker, J. Zweizig, and LSC Instrument. Identification and mitigation of narrow spectral artifacts that degrade searches for persistent gravitational waves in the first two observing runs of Advanced LIGO. *Physical Review D*, 97(8), APR 23 2018. ISSN 2470-0010. doi: 10.1103/PhysRevD.97.082002.
- [7] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, The Virgo Collaboration, and The KAGRA Collaboration). Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. *Living Reviews In Relativity*, 21, APR 26 2018. doi: 10.1007/s41114-018-0012-9.
- [8] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run. *Classical And Quantum Gravity*, 35(6), MAR 22 2018. ISSN 0264-9381. doi: 10.1088/1361-6382/aaab76.
- [9] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO's first observing run. *Classical And Quantum Gravity*, 35(6), MAR 22 2018. ISSN 0264-9381. doi: 10.1088/1361-6382/aaaafa.
- [10] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. *Physical Review Letters*, 120(9), FEB 28 2018. ISSN 0031-9007. doi: 10.1103/PhysRevLett.120.091101.
- [11] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). First Search for Nontensorial Gravitational Waves from Known Pulsars. *Physical Review Letters*, 120(3), JAN 19 2018. ISSN 0031-9007. doi: 10.1103/PhysRevLett.120.031104.
- [12] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. *Astrophysical Journal Letters*, 850(2), Dec 1 2017. ISSN 2041-8205. doi: 10.3847/2041-8213/aa9478.
- [13] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. *Physical Review D*, 96(12), Dec 8 2017. ISSN 2470-0010. doi: 10.1103/PhysRevD.96.122004.
- [14] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). First Search for Gravitational Waves from Known Pulsars with Advanced LIGO (vol 839, 12, 2017). *Astrophysical Journal*, 851(1), Dec 10 2017. ISSN 0004-637X. doi: 10.3847/1538-4357/aa9aee.
- [15] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). On the Progenitor of Binary Neutron Star Merger GW170817. *Astrophysical Journal Letters*, 850(2), Dec 1 2017. ISSN 2041-8205. doi: 10.3847/2041-8213/aa93fc.
- [16] A. Albert *et al.*, (ANTARES Collaboration, IceCube Collaboration, the Pierre Auger Collaboration, LIGO Scientific Collaboration, and Virgo Collaboration). Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. *Astrophysical Journal Letters*, 850(2), Dec 1 2017. ISSN 2041-8205. doi: 10.3847/2041-8213/aa9aed.
- [17] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration and The Virgo Collaboration). Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. *Astrophysical Journal Letters*, 851(1), Dec 10 2017. ISSN 2041-8205. doi: 10.3847/2041-8213/aa9a35.

- [18] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, The Virgo Collaboration, The 1M2H Collaboration, The Dark Energy Camera GW-EM Collaboration and the DES Collaboration, The DLT40 Collaboration, The Las Cumbres Observatory Collaboration, The VINROUGE Collaboration, and The MASTER Collaboration). A gravitational-wave standard siren measurement of the Hubble constant. *Nature*, 551(7678):85+, Nov 2 2017. ISSN 0028-0836. doi: 10.1038/nature24471.
- [19] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, The Virgo Collaboration, Fermi Gamma-ray Burst Monitor and INTEGRAL). Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. *Astrophysical Journal Letters*, 848(2), Oct 20 2017. ISSN 2041-8205. doi: 10.3847/2041-8213/aa920c.
- [20] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. *Physical Review Letters*, 119(14), Oct 6 2017. ISSN 0031-9007. doi: 10.1103/PhysRevLett.119.141101.
- [21] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. *Physical Review Letters*, 119(16), Oct 16 2017. ISSN 0031-9007. doi: 10.1103/PhysRevLett.119.161101.
- [22] Abbott, B. *et al.*, (LIGO Scientific Collaboration and Virgo Collaboration, Fermi GBM, INTEGRAL, IceCube Collaboration, AstroSat Cadmium Zinc Telluride Imager Team, IPN Collaboration, The Insight-HXMT Collaboration, ANTARES Collaboration, The Swift Collaboration, AGILE Team, The 1M2H Team, The Dark Energy Camera GW-EM Collaboration and the DES Collaboration, The DLT40 Collaboration, GRAWITA: GRAvitational Wave Inaf TeAm, The Fermi Large Area Telescope Collaboration, ATCA: Australia Telescope Compact Array, ASKAP: Australian SKA Pathfinder, Las Cumbres Observatory Group, OzGrav, DWF (Deeper, Wider, Faster Program), AST3, and CAASTRO Collaborations, The VINROUGE Collaboration, MASTER Collaboration, J-GEM, GROWTH, JAGWAR, Caltech- NRAO, TTU-NRAO, and NuSTAR Collaborations, Pan-STARRS, The MAXI Team, TZAC Consortium, KU Collaboration, Nordic Optical Telescope, ePESSTO, GROND, Texas Tech University, SALT Group, TOROS: Transient Robotic Observatory of the South Collaboration, The BOOTES Collaboration, MWA: Murchison Widefield Array, The CALET Collaboration, IKI-GW Follow-up Collaboration, H.E.S.S. Collaboration, LOFAR Collaboration, LWA: Long Wavelength Array, HAWC Collaboration, The Pierre Auger Collaboration, ALMA Collaboration, Euro VLBI Team, Pi of the Sky Collaboration, The Chandra Team at McGill University, DFN: Desert Fireball Network, ATLAS, High Time Resolution Universe Survey, RIMAS and RATIR, and SKA South Africa/MeerKAT). Multi-messenger Observations of a Binary Neutron Star Merger. *Astrophysical Journal Letters*, 848(2), Oct 20 2017. ISSN 2041-8205. doi: 10.3847/2041-8213/aa91c9.
- [23] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). All-sky search for periodic gravitational waves in the O1 LIGO data. *Physical Review D*, 96(6), Sep 12 2017. ISSN 2470-0010. doi: 10.1103/PhysRevD.96.062002.
- [24] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. *Astrophysical Journal*, 847(1), Sep 20 2017. ISSN 0004-637X. doi: 10.3847/1538-4357/aa86f0.
- [25] A. Albert *et al.* (ANTARES Collaboration, IceCube Collaboration, LIGO Scientific Collaboration, and Virgo Collaboration). Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube. *Physical Review D*, 96(2), Jul 12 2017. ISSN 2470-0010. doi: 10.1103/PhysRevD.96.022005.
- [26] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. *Physical Review D*, 96(2), Jul 11 2017. ISSN 2470-0010. doi: 10.1103/PhysRevD.96.022001.

- [27] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. *Physical Review Letters*, 118(22), Jun 1 2017. ISSN 0031-9007. doi: 10.1103/PhysRevLett.118.221101.
- [28] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, The Virgo Collaboration and The IPN Collaboration). Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. *Astrophysical Journal*, 841(2), Jun 1 2017. ISSN 0004-637X. doi: 10.3847/1538-4357/aa6c47.
- [29] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model. *Physical Review D*, 95(12), Jun 27 2017. ISSN 2470-0010. doi: 10.1103/PhysRevD.95.122003.
- [30] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). Effects of waveform model systematics on the interpretation of GW150914. *Classical and Quantum Gravity*, 34(10), May 18 2017. ISSN 0264-9381. doi: 10.1088/1361-6382/aa6854.
- [31] Carl Blair, Slawek Gras, Richard Abbott, Stuart Aston, Joseph Betzwieser, David Blair, Ryan DeRosa, Matthew Evans, Valera Frolov, Peter Fritschel, Hartmut Grote, Terra Hardwick, Jian Liu, Marc Lormand, John Miller, Adam Mullavey, Brian O'Reilly, Chunnong Zhao, B. P. Abbott, T. D. Abbott, C. Adams, R. X. Adhikari, S. B. Anderson, A. Ananyeva, S. Appert, K. Arai, S. W. Ballmer, D. Barker, B. Barr, L. Barsotti, J. Bartlett, I. Bartos, J. C. Batch, A. S. Bell, G. Billingsley, J. Birch, S. Biscans, C. Biwer, R. Bork, A. F. Brooks, G. Ciani, F. Clara, S. T. Countryman, M. J. Cowart, D. C. Coyne, A. Cumming, L. Cunningham, K. Danzmann, C. F. Da Silva Costa, E. J. Daw, D. DeBra, R. DeSalvo, K. L. Dooley, S. Doravari, J. C. Driggers, S. E. Dwyer, A. Effler, T. Etzel, T. M. Evans, M. Factourovich, H. Fair, A. Fernandez Galiana, R. P. Fisher, P. Fulda, M. Fyffe, J. A. Giaime, K. D. Giardino, E. Goetz, R. Goetz, C. Gray, K. E. Gushwa, E. K. Gustafson, R. Gustafson, E. D. Hall, G. Hammond, J. Hanks, J. Hanson, G. M. Harry, M. C. Heintze, A. W. Heptonstall, J. Hough, K. Izumi, R. Jones, S. Kandhasamy, S. Karki, M. Kasprzack, S. Kaufer, K. Kawabe, N. Kijbunchoo, E. J. King, P. J. King, J. S. Kissel, W. Z. Korth, G. Kuehn, M. Landry, B. Lantz, N. A. Lockerbie, A. P. Lundgren, M. MacInnis, D. M. Macleod, S. Marka, Z. Marka, A. S. Markosyan, E. Maros, I. W. Martin, D. V. Martynov, K. Mason, T. J. Massinger, F. Matichard, N. Mavalvala, R. McCarthy, D. E. McClelland, S. McCormick, G. McIntyre, J. McIver, G. Mendell, E. L. Merilh, P. M. Meyers, R. Mittleman, G. Moreno, G. Mueller, J. Munch, L. K. Nuttall, J. Oberling, P. Oppermann, Richard J. Oram, D. J. Ottaway, H. Overmier, J. R. Palamos, H. R. Paris, W. Parker, A. Pele, S. Penn, M. Phelps, V. Pierro, I. Pinto, M. Principe, L. G. Prokhorov, O. Puncken, V. Quetschke, E. A. Quintero, F. J. Raab, H. Radkins, P. Raffai, S. Reid, D. H. Reitze, N. A. Robertson, J. G. Rollins, V. J. Roma, J. H. Romie, S. Rowan, K. Ryan, T. Sadecki, E. J. Sanchez, V. Sandberg, R. L. Savage, R. M. S. Schofield, D. Sellers, D. A. Shaddock, T. J. Shaffer, B. Shapiro, P. Shawhan, D. H. Shoemaker, D. Sigg, B. J. J. Slagmolen, B. Smith, J. R. Smith, B. Sorazu, A. Staley, K. A. Strain, D. B. Tanner, R. Taylor, M. Thomas, P. Thomas, K. A. Thorne, E. Thrane, C. I. Torrie, G. Traylor, G. Vajente, G. Valdes, A. A. van Veggel, A. Vecchio, P. J. Veitch, K. Venkateswara, T. Vo, C. Vorvick, M. Walker, R. L. Ward, J. Warner, B. Weaver, R. Weiss, P. Wessels, B. Willke, C. C. Wipf, J. Worden, G. Wu, H. Yamamoto, C. C. Yancey, Hang Yu, Haocun Yu, L. Zhang, M. E. Zucker, and J. Zweizig. First Demonstration of Electrostatic Damping of Parametric Instability at Advanced LIGO. *Physical Review Letters*, 118(15), Apr 11 2017. ISSN 0031-9007. doi: 10.1103/PhysRevLett.118.151102.
- [32] Abbott, B. P. *et al.*, (The LIGO Scientific Collaboration, and The Virgo Collaboration). First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. *Astrophysical Journal*, 839(1), Apr 10 2017. ISSN 0004-637X. doi: 10.3847/1538-4357/aa677f.
- [33] D. V. Martynov, V. V. Frolov, S. Kandhasamy, K. Izumi, H. Miao, N. Mavalvala, E. D. Hall, R. Lanza, B. P. Abbott, R. Abbott, T. D. Abbott, C. Adams, R. X. Adhikari, S. B. Anderson, A. Ananyeva, S. Appert, K. Arai, S. M. Aston, S. W. Ballmer, D. Barker, B. Barr, L. Barsotti, J. Bartlett, I. Bartos, J. C. Batch, A. S. Bell, J. Betzwieser, G. Billingsley, J. Birch, S. Biscans, C. Biwer, C. D. Blair, R. Bork, A. F.

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Technical talks and professional meetings:

- [1] “Patience and Stewardship over Generations: LIGOs Detector Facilities and Recent Discoveries,” plenary talk at International Workshop to Develop Research Campaigns, Interdisciplinary Teams and Disruptive Technologies for the NHERI 5-Year Science Plan for Natural Hazards, Alexandria, VA, March 18, 2019
- [2] “Wonderful collisions: gravitational wave detections meet astrophysics,” Fred Combley Lecture in Gravitational Wave Astronomy, University of Sheffield (U.K.), March 6, 2019.
- [3] “Wonderful collisions: gravitational wave detections meets astrophysics,” invited banquet talk at the Conference on Application of Accelerators in Research and Industry (CAARI), in Grapevine, TX, August 15, 2018.
- [4] “Observations of a neutron star merger,” introductory talk to the National Science Board, during their visit to LIGO Livingston, LA, October 27, 2017.
- [5] “Observations of a neutron star merger,” general seminar, Department of Physics and Astronomy, Louisiana State University, Baton Rouge LA, October 26, 2017.
- [6] “Gravitational-wave observation at LIGO,” talk for SURA board meeting, LIGO Livingston, LA, April 18, 2017.
- [7] “Gravitational-wave observation at LIGO,” talk at CALET collaboration meeting, LIGO Livingston, March 24, 2017.
- [8] “Ground-based gravitational-wave observatories,” invited talk at the American Physical Society 2017 ‘April’ meeting, Washington DC, January 30, 2017.
- [9] “Gravitational waves in the southeast,” invited banquet lecture, 83rd Annual Meeting of the APS Southeastern Section, Charlottesville, VA, November 10, 2016.
- [10] “Observation of gravitational waves from binary black holes using ultra-high precision laser interferometers,” invited plenary lecture at the V Congreso Nacional de Ingeniería Física CNIF in Medellín, Colombia, September 27, 2016.

- [11] "Hearing Black Holes Collide, with LIGO," invited lecture at the 2016 British Science Festival in Swansea, Wales, U.K., September 7, 2016.
- [12] "Observation of Gravitational Waves from a Binary Black Hole Merger," Physics and Astronomy seminar at the University of California Davis, May 2, 2016.
- [13] "Observation of Gravitational Waves," Louisiana State University College of Science seminar, March 11, 2016. (with G. González)
- [14] "LIGO: science, technology and expectations in the Advanced LIGO era," seminar at the University of Louisiana, Lafayette, February 26, 2014.
- [15] Host and Chair of local committee, Southeastern Section of American Physical Society, annual meeting, Baton Rouge, LA, October 20-23, 2010.
- [16] "The LIGO detector, past present and future," invited talk at Multi-Messenger Relativistic Astrophysics; inaugural conference of the Center for Relativistic Astrophysics at Georgia Tech, May 20, 2009.
- [17] "Operational Challenges at LIGO," National Science Foundation (NSF) Large Facilities Workshop, Tucson, AZ, April 17, 2009.
- [18] "The Laser Interferometer Gravitational-wave Observatory: present performance and improvements underway," all-hands meeting of Open Science Grid (OSG) Council, Livingston, LA, March 4, 2009.
- [19] "The Science Education Center at the LIGO Livingston Observatory," invited talk at the annual conference of the Association of Science and Technology Centers (ASTC), Los Angeles, October 16, 2007.
- [20] "The Laser Interferometer Gravitational-wave Observatory: present performance and improvements underway," seminar at Tulane University, September 11, 2007.
- [21] "Searching for Gravitational Waves," Chair and organizer of invited session at the November 9–11, 2006, meeting of the Southeast Section of the American Physical Society, held in Williamsburg, Virginia.
- [22] "Improving the LIGO detector," general seminar, Department of Physics, University of Louisiana Lafayette, October 11, 2006.
- [23] "The Advanced LIGO detector," invited talk, 6th Edoardo Amaldi Conference on Gravitational Waves, Okinawa, Japan, June 24, 2005.
- [24] "Improving the LIGO detector," invited talk, Research Progress Meeting (RPM), Lawrence Berkeley National Laboratory, April 7, 2005.
- [25] "Critical mechanical technologies for future gravitational-wave astronomy," invited talk at Imagining the Future: Gravitational Wave Astronomy, Pennsylvania State University, State College PA, October 29, 2004.
- [26] "Improving the LIGO Detector," general seminar, Department of Physics and Astronomy, Louisiana State University, Baton Rouge LA, October 21, 2004.
- [27] "The X-arm interferometer test of HEPI at LIGO Livingston," (LSC Meeting, August 16–19, 2004, Hanford WA.)
- [28] "The Laser Interferometer Gravitational-wave Observatory, early results and technical progress." Physics colloquium at the University of Alabama, Tuscaloosa, October 15, 2003.
- [29] "Seismic Isolation Enhancements for Initial and Advanced LIGO," presented at the 5th Amaldi meeting, Tirrenia, Italy, July 10, 2003.

- [30] "Active seismic isolation for an advanced LIGO gravitational-wave detector," invited talk at the March 2003 APS meeting, Austin, TX.
- [31] "Gravitational-wave Data Analysis Workshop," (Co-host/organizer), Louisiana State University, December, 2000.
- [32] "Advanced seismic isolation for LIGO-II," seminar at the Center for Gravitational Physics and Geometry, Penn State, April 10, 2000.
- [33] "Software Tools for Advanced Interferometer Configurations," (Conference co-host/organizer), Louisiana State University, March, 2000.
- [34] "The JILA low-frequency seismic isolation platform," with R. Stebbins, P. Bender and J. Faller, at the VIRGO International Workshop on Thermal Noise and Low-Frequency Noise Sources in Gravitational-Wave Detectors, 4-6 June, 1998, Perugia, Italy.
- [35] "Low noise interferometric seismometer readouts in an active vibration isolation system for gravitational wave detectors," with S. Richman, R. Stebbins, P. Bender, and J. Faller, presented at the 1997 Joint April meeting of the APS and the AAPT. *Bull. APS*, **42:2**, 1106.
- [36] "An analysis of interferometric gravitational wave detector design using MAPLE," presented at the 1996 East Coast Computer Algebra Day, April 13, 1996, Yorktown Heights, NY.
- [37] "Test of a candidate interferometer configuration for LIGO," (with D. Shoemaker), presented at the 1994 Joint April meeting of the APS and the AAPT. *Bull. APS*, **39:2**, session J11 PMTG.

Public lectures and exhibitions:

- [1] Invited demonstrations and outreach activities at the Arc of Science event on Capitol Hill, as part of the LIGO Science Education Center Partnership with Southern University, February 15, 2017, Washington, DC.
- [2] "Hearing Black Holes Collide, with LIGO," Rotary Club of Baton Rouge, October 19, 2016.
- [3] "Hearing Black Holes Collide in Louisiana," Baton Rouge Press Club, September 12, 2016.
- [4] "Hearing Black Holes Collide, with LIGO," David Elder Lecture, Glasgow Science Centre, Glasgow, Scotland, U.K., August 29, 2016.
- [5] "Hearing Black Holes Collide," Sunrise Rotary, Baton Rouge, LA, May 19, 2016.
- [6] "Hearing Black Holes Collide," lecture for the general public at University of California, Davis, CA, May 3, 2016.
- [7] "Hearing Black Holes Collide in Louisiana," *Einstein Week* public lecture, University of New Orleans, LA, April 21, 2016.
- [8] "Hearing Black Holes Collide in Louisiana," lecture to Baton Rouge Astronomical Society, April 11, 2016.
- [9] "The Science Education Center and the LIGO Livingston Observatory," Denham Springs Kiwanis, July 24, 2008.
- [10] "The Laser Interferometer Gravitational-wave Observatory, and the new Science Education Center," seminar at the Baton Rouge Area Foundation, August 27, 2007.
- [11] "Searching for Gravitational Waves with LIGO," invited talk to the Baton Rouge Rotary, May 9, 2007.
- [12] "The LIGO Detector," Baton Rouge Amateur Radio Club, April 25, 2006.
- [13] "LIGO and the Search for Gravitational Waves," LSU Saturday Science, February 2003.