Mario C. Díaz

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CONTACT INFORMATION

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CURRENT APPOINTMENTS

Professor of Physics, tenured, Department of Physics and Astronomy, The University of Texas at Brownsville (since 2003).

Director, Center for Gravitational Wave Astronomy, The University of Texas at Brownsville (since 2003).

Adjoint Professor (graduate faculty in the doctoral program), Department of Physics and Astronomy, The University of Texas at San Antonio (since 2009).

Adjoint Professor (graduate faculty in the doctoral program), Department of Physics, The University of Texas at Arlington (since 2014).

EDUCATION

University of Córdoba, Córdoba, Argentina

Ph.D., Physics, August 1987. General Relativity and Gravitation. Solitonic Cosmological Solutions of Einstein's Equations.

University of Córdoba, Córdoba, Argentina

Licenciado (M.S.), Physics, March 1984.

HONORS AND AWARDS

Merit Undergraduate Student Fellowship, University of Córdoba (UNC), Córdoba, Argentina, 1979-82.
International Postdoctoral Fellowship Award, National Scientific and Technological Research Council (CONICET), Argentina ,1988-90.
Distinguished Fullbright Chair in Gravitational Wave Detection, University Federico II, Naples, Italy, 2003-2004.
UTRGV Excellence Research Award, 2015-2016.
Distinguished Visitor, Universidad Nacional de Cordoba, Argentina, 2016.
Honorific mention, National Senate of the Argentine Republic, 2016
Special Breakthrough Prize in Fundamental Physics, 2016.
Gruber Prize in Cosmology, Yale University, 2016.
Princess of Asturias Prize in Sciences, Spanish Crown, 2017.

ACADEMIC EXPERIENCE

Visiting Professor

- University of Buenos Aires, Buenos Aires, Argentina, September-November 2017.
- University of Catamarca, Catamarca, Argentina, May 2007.
- University of Nanjing, Department of Astronomy, Nanjing, People's Republic of China, July -August 2006. First Summer School in Gravitational Wave Astronomy.

- University of Naples, Department of Physics and INFN Napoli-VIRGO group, Naples, Italy, Spring 2004.
- California Institute of Technology, Associate Physicist, 1999-2002 .
- Adjunct Professor, Department of Physics, The University of Texas at El Paso (2000-2004).
- Adjunct Professor, Department of Physics, The University of Texas at Dallas (2004-2008).
- The Pennsylvania State University Center for Gravitational Physics and Geometry and Department of Physics, University Park, PA, Summer 1995.

Associate Professor

- The University of Texas at Brownsville, 1999-2003.

Assistant Professor

- The University of Texas at Brownsville, 1996-1999.
- Mercyhurst University, Department of Physics and Astronomy, 1990-1996.
- University of Córdoba, Argentina, 1987-1992, (on leave 1988-1992).

Postdoctoral

- University of Pittsburgh, Department of Physics and Astronomy, Pittsburgh, PA 1988-1990.

Instructor

- University of Pittsburgh, Pittsburgh (PA), 1989-1990.
- Wheeling Jesuit College, Wheeling, WV. Summer 1989, Summer 1990.
- University of Córdoba, Córdoba, 1984-1987.

Teaching Assistant

- University of Córdoba, Córdoba, 1980-1984

ADMINISTRATIVE EXPERIENCE

Director, Center for Gravitational Wave Astronomy, The University of Texas at Brownsville, 2003- present.

Interim Chair, Department of Physics and Astronomy, The University of Texas at Brownsville, 2008-2009.

Chair, Department of Physics and Astronomy, The University of Texas at Brownsville, 2001-2003.

Interim Chair, Department of Engineering Technology, The University of Texas at Brownsville,

1999-2003.

Chair, Department of Physics, Mercyhurst College, 1994-96.

Other Professional Experience

Technician (journeyman), SKF Argentina, 1970-1974

Mechanical Engineer/Technician, Renault Argentina, 1974-1980.

Professional Societies Membership

Argentine Physical Society (AFA),
American Physical Society (APS),
APS Division of General Relativity and Gravitation,
APS, Forum on Education,
APS, Texas section.
International Society of General Relativity and Gravitation,
National Society of Hispanic Physicists (founding member),
SACNAS (Society for the Advancement of Chicanos and Native Americans in Science).

Publications

1985, M C. Díaz and R.J. Gleiser, The Geometric Structure of 2n Soliton Solutions of Einstein Equations in Relativity Supersymmetry and Cosmology, O. Bressan et al eds., World Scientific Pub., Singapore, p. 259.

1985, M.C. Díaz and R.J. Gleiser, Smooth Extensions of a Class of 2n Soliton Metrics Class. and Quantum Grav 2, 891.

1987, M.C. Díaz, R.J. Gleiser, and J.A. Pullin, Solitonic Perturbations of Perfect Fluid FRW Cosmological Models , Class. and Quantum Grav 4, L23.

1987, M. Caceres, M.C. Díaz and J.A. Pullin, Stochastic Processes in Cosmology (1987), Phys. Letters A123,329.

1987, J. Cruzate, M.C. Díaz, R.J. Gleiser, and J.A. Pullin, Solitonic Inhomogeneities in the Standard Model, Bulletin of the Argentine Astronomical Association, p. 93.

1988 M.C. Díaz, R.J. Gleiser, and J.A. Pullin, No Hair Theorems and Solitonic Instabilities of DeSitter Spacetimes, Proceedings of the VI SILARG (Latin American Symposium on General Relativity and Gravitation), M. Novello ed., World Scientific Pub., Singapore, p. 135.

1988 M.C. Díaz, and R.J. Gleiser, On the Geometric Structure of Nonstationary Multisoliton Metrics with Real Pole Trajectories on a General Background, Gen. Rel. Grav. 20, 517.

1988 M.C. Díaz, Nonlinear Sigma Models, Kac-Moody Algebras and General Relativity with a G2, Rev. Mex. Fis. 34, 1.

1989 M.C. Díaz and J.A. Pullin, General Solution for Slowly Rotating Fluid Spheres in

General Relativity, Astr. and Space Sc. 148, 385.

1988, R.J. Gleiser and M.C. Díaz, Perfect Fluid Cosmologies with Extra Dimensions, Phys. Rev. D 37, 3761.

1988, M.C. Díaz, R.J. Gleiser, and J.A. Pullin, Solitonic Instabilities of DeSitter Universes, Phys. Letters A127, 60.

1988, M.C. Díaz, R.J. Gleiser, and J.A. Pullin, Solitonic Solutions in the Kaluza Klein Jordan Formalism as Cosmological Models in General Relativity, J. of Math. Phys. 29, 169.

1988, R.J. Gleiser, M.C. Díaz, and R.D. Grosso, Phase Transitions in Perturbed Stiff Fluid FRW Cosmological Models, Class. and Quantum Grav. 5, 989.

1989, M.C. Díaz, R.J. Gleiser, and J.A. Pullin, Finite Perturbations on Perfect Fluid FRW Models, The Astrophysical J. 339, 1

1989, J. Cruzate, M.C.Díaz, R.J.Gleiser and J.A.Pullin, Soliton Collision in cosmologies with matter, Class. and Quantum Grav. 5, 883.

1989, M.C.Díaz, R.J.Gleiser and J.A.Pullin, Brans-Dicke Solitons as finite perturbations on perfect fluid models in General relativity, Class. and Quantum Grav. 5, 641.

1989, M.C. Díaz, R.J. Gleiser, G.I. Gonzalez, and J.A. Pullin, Completeness and Singularities in Some inhomogeneous cosmologies, Phys. Rev. D 40 1033.

1992, M.C. Díaz and G.A.J. Sparling, Dimensional reduction of selfdual Yang-Mills equations and the two dimensional conformal group, in Diferential Geometric Methods in Mathematical Physics, S. Catto and A. Rocha, eds. World Sc. Pub. Singapore, p. 295.

1994, M.C. Díaz, A Science Computer lab: What to teach? How to teach it? , Journal of Computing in Small Colleges, 10 137.

1996, M.C. Díaz and G.A.J. Sparling, A systematic Approach to the study of Dimensional Reductions of Self Dual Yang Mills Equations, in The Seventh Marcel Grossman Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation and Relativistic Theories, Editors Robert T. Jantzen and G. Mac Keiser, World Scientific Pub., Singapore, vol. I, 325.

2000, M. C. Díaz, A successful Story of Collaborative research, NASA report NASA/CP-2000-209975, 270.

2002, J.T.Whelan, W. Anderson, Martha Casquette, M.C. Díaz , Ik Siong Heng, Martin McHugh, Joseph D. Romano, Charlie Torres Jr, Rosa Trejo and Alberto Vecchio, Progress on stochastic background search codes for LIGO, Class. Quantum Grav. 19, 1521-1527.

2002, Allen, B. et al. (including M. Díaz), "Detecting a Stochastic Background of Gravitational Radiation Background Information," LIGO-T020166-00-Z.

2003, Allen, B. et al., (including M. Díaz), "Analysis of First LIGO Science Data for Stochastic Gravitational Waves," LIGO-P030009-11-Z.

2004, B. Abbott et al. including Mario Díaz, First upper limits from ligo on gravitational wave bursts, Phys.Rev. D69, 102001.

2004, B. Abbott et al. including Mario Díaz, Detector Description And Performance For The First Coincidence Observations Between Ligo And Geo, Nucl. Instrum. Meth. A517, 154-179.

2004, B. Abbott et al. including Mario Díaz, Analysis Of First Ligo Science Data For Stochastic Gravitational Waves, Phys.Rev.D69, 122004.

2004, B. Abbott et al. including Mario Díaz, First Upper Limits From Ligo On Gravitational Wave Bursts, Class.Quant.Grav. 21:S677-S684.

2004, B. Abbott et al. including Mario Díaz, First upper limits from LIGO on gravitational wave bursts, Phys. Rev. D 69, 102001-121.

2004, B. Abbott et al. including Mario Díaz, Analysis Of Ligo Data For Gravitational Waves From Binary Neutron Stars, Phys.Rev. D69, 122001.

2004, B. Abbott et al. including Mario Díaz, Upper limits on the strength of periodic gravitational waves from PSR J1939+2134, Class. Quantum Grav. 21, 671676.

2004, B. Abbott et al. including Mario Díaz, Setting Upper Limits On The Strength Of Periodic Gravitational Waves From PSR J1939+2134 Using The First Science Data From The Geo 600 And Ligo Detectors, Phys.Rev. D69, 082004.

2005, B. Abbott et al. including Mario Díaz, A Search for Gravitational Waves Associated with the Gamma Ray Burst GRB030329 Using the LIGO Detectors, Phys. Rev. D 72, 042002.

2005, B. Abbott et al. including Mario Díaz, First All-sky Upper Limits from LIGO on the Strength of Periodic Gravitational Waves Using the Hough Transform, Phys. Rev. D 72, 102004.

2005, B. Abbott et al. including Mario Díaz, Joint LIGO and TAMA300 Search for Gravitational Waves from Inspiralling Neutron Star Binaries, Phys. Rev. D 73, 102002.

2005, B. Abbott et al. including Mario Díaz, Limits on Gravitational-Wave Emission from Selected Pulsars Using LIGO Data, Phys. Rev. Lett. 94, 181103.

2005, B. Abbott et al. including Mario Díaz, Search for Gravitational Waves from Galactic and Extra-galactic Binary Neutron Stars, Phys. Rev. D. 72, 082001.

2005, B. Abbott et al. including Mario Díaz, Search for Gravitational Waves from Primordial Black Hole Binary Coalescences in the Galactic Halo, Phys. Rev. D. 72, 082002.

2005, B. Abbott et al. including Mario Díaz, Upper Limits from LIGO and TAMA Detectors on the Rate of Gravitational Wave Bursts, Phys. Rev. D. 72, 122004.

2005, B. Abbott et al. including Mario Díaz, Upper Limits on Gravitational Wave Bursts in LIGO's Second Science Run, Phys. Rev. D 72, 062001.

2006, B. Abbott et al. including Mario Díaz, Search for Gravitational Waves from Binary Black Hole Inspirals in LIGO Data, Phys. Rev. D 73, 062001.

2006, B. Abbott et al. including Mario Díaz, Search for Gravitational Wave Bursts in LIGO's Third Science Run, Class. Quantum Grav. 23, S29-S39.

2006, B. Abbott et al. including Mario Díaz, Upper Limits on a Stochastic Background of Gravitational Waves, Phys. Rev. Lett. 95, 221101.

2006, Mario Díaz and Soumya Mohanty, editors, PROCEEDINGS OF THE 10TH GRAVITATIONAL WAVE DATA ANALYSIS WORKSHOP, BROWNSVILLE, TEXAS, USA, 1417 DECEMBER 2005, Classical and Quantum Gravity, 23, S635-S848.

2006, B. Abbott et al. including Mario Díaz, Joint LIGO and TAMA300 search for gravitational waves from inspiralling neutron star binaries, Phys. Rev. D 73, 102002-110.

2007, B. Abbott et al. including Mario Díaz, , Searching for a stochastic background of gravitational waves with LIGO, Astrophysical Journal, 659, 918.

2007, B. Abbott et al. including Mario Díaz, Upper limits on gravitational wave emission from 78 radio pulsars, Phys. Rev. D 76, 042001.

2007, B. Abbott et al. including Mario Díaz, First cross-correlation analysis of interferometric and resonant-bar gravitational-wave data for stochastic backgrounds, Phys. Rev. D 76, 022001 (2007)

2007, Abbott et al, including Mario Díaz, Search for gravitational wave radiation associated with the pulsating tail of the SGR 1806 20 hyperflare of 27 December 2004 using LIGO, Phys. Rev. D 76, 062003 .

2007, Abbott et al, including Mario Díaz, Upper limit map of a background of gravitational waves, Phys. Rev. D 76 (2007) 082003 astro-ph/0703234

2007, Abbott et al, including Mario Díaz, Search for gravitational-wave bursts in LIGO data from the fourth science run, Class. Quantum Grav. 24 (2007) S5343S5369

2007, Abbott et al, including Mario Díaz, Searches for periodic gravitational waves from unknown isolated sources and Scorpius X-1: Results from the second LIGO science run, Phys. Rev. D 76, 082001.

2008, Abbott et al, including Mario Díaz, Search for gravitational waves from binary inspirals in S3 and S4 LIGO data, Phys. Rev. D 77, 062002.

2008, R. Grosso and M. Díaz, "A Fourier based technique to simulate very large time series", LIGO P070147-00, to be published C.& Q Grav.

2008, Abbott et al, including Mario Díaz, Search for gravitational waves associated with 39 gamma-ray bursts using data from the second, third, and fourth LIGO runs, Phys. Rev. D 77, 062004.

2008, Abbott et al, including Mario Díaz, All-sky search for periodic gravitational waves in LIGO S4 data, Phys. Rev. D 77, 022001 (2008)

2008, Abbott et al, including Mario Díaz, Astrophysically triggered searches for gravitational waves: status and prospects, Class. Quantum Grav. 25, 114051.

2008, Abbott et al, including Mario Díaz, Implications for the Origin of GRB 070201 from LIGO Observations, Astrophys. J. 681, 1419.

2008, Abbott et al, including Mario Díaz, Barthelmy, Gehrels, Hurley, Palmer, Search for

Gravitational Wave Bursts from Soft Gamma Repeaters, Phys. Rev. Lett. 101 (2008) 211102.

2008, Abbott et al, including Mario Díaz, Beating the spin-down limit on gravitational wave emission from the Crab pulsar, ApJ Lett 683, 45

2008, Abbott et al, including Mario Díaz, LIGO: The Laser Interferometer Gravitational-Wave Observatory, Rep. Prog. Phys. 72 (2009) 076901 , arXiv:0711.3041.

2008, Abbott et al, including Mario Díaz, All-sky LIGO Search for Periodic Gravitational Waves in the Early S5 Data, Phys. Rev. Lett.102 (2009) 111102 , arXiv:0810.0283.

2008, Abbott et al, including Mario Díaz, Search for Gravitational Waves from Low Mass Binary Coalescences in the First Year of LIGO's S5 Data, Phys. Rev. D 79 (2009) 122001, arXiv:0901.0302.

2008, Abbott et al. including Mario Díaz, The Einstein@Home search for periodic gravitational waves in LIGO S4 data, Phys. Rev. D 79 (2009) 022001.

2009, Abbott et al. including Mario Díaz, "First LIGO search for gravitational wave bursts from cosmic (super)strings", Phys Rev D 80 (2009) 062002.

2009, Abbott et al. including Mario Díaz, Search for High Frequency Gravitational Wave Bursts in the First Calendar Year of LIGO's Fifth Science Run, Phys Rev D 80 (2009) 102002.

2009, Abbott et al. including Mario Díaz, Stacked Search for Gravitational Waves from the 2006 SGR 1900+14 Storm, Astrophys. J. 701 (2009) L68-L74 arXiv:0905.0005.

2009, Abbott et al. including Mario Díaz, Search for gravitational-wave bursts in the first year of the fifth LIGO science run, Phys Rev D 80 (2009) 102001.

2009, Abbott et al. including Mario Díaz, Search for gravitational wave ringdowns from perturbed black holes in LIGO S4 data, Phys. Rev. D 80 (2009) 062001, arXiv:0905.1654.

2009, Abbott et al. including Mario Díaz, Einstein@Home search for periodic gravitational waves in early S5 LIGO data, Anderson Phys. Rev. D 80 (2009) 042003, arXiv:0905.1705.

2009, Abbott et al. including Mario Díaz, Search for Gravitational Waves from Low Mass Compact Binary Coalescence in 186 Days of LIGO's fifth Science Run, Phys. Rev. D 80 (2009) 047101.

2009, Abbott et al. including Mario Díaz, Observation of a kilogram-scale oscillator near its quantum ground state, New J. Phys. 11 (2009).

2009, Abbott et al. including Mario Díaz, An upper limit on the stochastic gravitational-wave background of cosmological origin, Nature 460 (2009) 990.

2009, Abbott et al. including Mario Díaz, Search for gravitational-wave bursts associated with gamma-ray bursts using data from LIGO Science Run 5 and Virgo Science Run 1, Astrophys. J. 715 (2010) 1438.

2009, Abbott et al. including Mario Díaz, Searches for gravitational waves from known pulsars with S5 LIGO data, Astrophys. J. 713 (2010) 671.

2009, Mario Díaz, Fredrick Jenet and Soumya Mohanty, editors, Bridging Gravitational Wave Astronomy and Observational Astrophysics', Proceedings of the 13th Gravitational Wave Data Analysis Workshop (GWDAW13) (San Juan, Puerto Rico, 1922 January 2009), sponsored by the Center for Gravitational Wave Astronomy, the University of Texas at Brownsville and the National Astronomy and Ionosphere Center, Journal of Classical and Quantum Gravity, Volume 26, Number 20, 2009.

2010, M. Díaz in LSC collaboration author list, "Search for Gravitational Waves from Compact Binary Coalescence in LIGO and Virgo Data from S5 and VSR1", M. Rakhmanov. V. Quetschke. M. Benacquista, T. Creighton, J. Romano, M. Díaz, R. Stone, S. Mohanty, S. Muhkherjee among LSC collaboration Phys. Rev. D 82 (2010) 102001.

2010,M. Díaz in LSC collaboration author list, "Searches for gravitational waves from known pulsars with S5 LIGO data", Astrophys. J. 713 (2010) 671.

2010, M. Díaz in LSC collaboration author list, Search for gravitational-wave bursts associated with gamma-ray bursts using data from LIGO Science Run 5 and Virgo Science Run 1, Astrophys. J. 715 (2010) 1438.

2010, M. Díaz in LSC collaboration author list, "First search for gravitational waves from the youngest known neutron star", Astrophys. J. 722 (2010) 1504.

2010, M. Díaz in LSC collaboration author list, "Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors", Class. Quantum Grav. 27 (2010) 173001 .

2010, M. Díaz in LSC collaboration author list, "Calibration of the LIGO Gravitational Wave Detectors in the Fifth Science Run", Nucl. Instrum. Meth. A624 (2010) 223.

2010, M. Díaz in LSC collaboration author list, "All-sky search for gravitational-wave bursts in the first joint LIGO-GEO-Virgo run" Phys. Rev. D 81 (2010) 102001.

2011, M. Díaz in LSC collaboration author list, "A search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar", Phys. Rev. D83 (2011) 042001.

2011, M. Díaz in LSC collaboration author list, "Search for Gravitational Wave Bursts from Six Magnetars", submitted for publication, Astrophys. J. 734 (2011) L35.

2011, M. Díaz in LSC collaboration author list, "Search for Gravitational Waves from Compact Binary Coalescence in LIGO and Virgo Data from S5 and VSR1", Phys. Rev. D83 (2011) 122005.

2011, M. Díaz in LSC collaboration author list, "Beating the spin-down limit on gravitational wave emission from the Vela pulsar", Astrophys. J. 737 (2011) 93.

2011, M. Díaz in LSC collaboration author list, "A gravitational wave observatory operating beyond the quantum shot-noise limit", Nature Physics 7 (2011) 962.

2011, M. Díaz in LSC collaboration author list, "Directional limits on gravitational waves using LIGO S5 science data", Phys. Rev. Lett. 107 (2011).

2012, M. Díaz in LSC collaboration author list, "Implementation and testing of the first prompt search for gravitational wave transients with electromagnetic counterparts", Astron Astrophys 539 (2012) A124.

2012, M. Díaz in LSC collaboration author list, "Search for Gravitational Waves from Low Mass Compact Binary Coalescence in LIGO's Sixth Science Run and Virgo's Science Runs 2 and 3", Phys. Rev D85 (2012) 082002.

2012, M. Díaz in LSC collaboration author list, "Upper limits on a stochastic gravitational-wave background using LIGO and Virgo interferometers at 600-1000 Hz", Phys. Rev. D 85 (2012) 122001.

2012, M. Díaz in LSC collaboration author list, "First Low-Latency LIGO+Virgo Search for Binary Inspirals and their Electromagnetic Counterparts", Astron Astrophys 541 (2012) A155.

2012, M. Díaz in LSC collaboration author list, "All-sky search for periodic gravitational waves in the full S5 LIGO data", Phys. Rev D85 (2012) 022001.

2012, M. Díaz in LSC collaboration author list, "Implications for the Origin of GRB 051103 from LIGO Observations", Astrophys. J. 755 (2012) 2.

2012, H. Pablo Daveloza, M. Afrin Badhan, M. Díaz, K. Kawabe, P. N. Konverski, M. Landry, R. L. Savage, "Controlling calibration errors in gravitational-wave detectors by precise location of calibration forces, Journal of Physics, 363 (2012) 012007.

2012, Geppo Cagnoli, Moises Castillo, Mario Díaz, Elisabetta Cesarini, Matteo Lorenzini, Francesco Piergiovanni, Alan Cumming, Marielle van Veggel, Giles Hammond, and Sheila Rowan, "Creep rate measurement setups for the hydroxide-catalysis bonded silica ears", submitted for publication.

2012, M. Díaz in LSC collaboration author list, "All-sky search for gravitational-wave bursts in the second joint LIGO-Virgo run", Phys. Rev. D 85 (2012) 122007.

2012, M. Díaz in LSC collaboration author list, "Search for Gravitational Waves from Intermediate Mass Binary Black Holes", Phys. Rev. D 85 (2012) 102004.

2012, M. Díaz in LSC collaboration author list and VIRGO Collaboration list, "Virgo data characterization and impact on gravitational wave searches", Class. Quantum Grav. 29 (2012) 155002.

2012, M. Díaz in LSC collaboration author list, Virgo collaboration and Swift collaboration, "Swift Follow-Up Observations Of Candidate Gravitational-Wave Transient Events", submitted for publication, preprint in: arXiv:1205.1124.

2012, M. Díaz in LSC collaboration author list, Virgo collaboration and others. "Search for gravitational waves associated with gamma-ray bursts during LIGO science run 6 and Virgo science run 2 and 3", ApJ, 760, 12.

2012 M. Díaz in P. A. Evans et al "Swift Follow-Up Observations Of Candidate Gravitational-Wave Transient Events", ApJS 203 28.

2012 M. Díaz in Abadie et al. "Search for Gravitational waves associated with Gamma-Ray Bursts during LIGO Science run 6 and VIRGO Science runs 2 and 3", ApJ 760 12.

2012 M. Díaz in Abadie et al 'Implementation and testing of the first prompt search for gravitational wave transients with electromagnetic counterparts', A&A, 539 A124.

2012, M. Díaz in Abadie et al, "First Low-Latency LIGO+Virgo Search for Binary Inspirals and their Electromagnetic Counterparts", A&A 541, A155.

2013, M. Díaz in LSC collaboration author list, Virgo collaboration, "Search for Gravitational Waves from Binary Black Hole Inspiral, Merger and Ringdown in LIGO-Virgo Data from 2009-2010", Phys. Rev. D 87 (2013) 022002.

2013, M. Díaz in LSC collaboration author list, Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light, Nature Photonics 7 (2013) 613.

2013, M. Díaz in LSC collaboration author list, Virgo collaboration, "Einstein@Home all-sky search for periodic gravitational waves in LIGO S5 data", Phys. Rev. D 87 (2013) 042001.

2013 M. Díaz in LSC collaboration author list, Virgo collaboration and ANTARES, "A first search for coincident gravitational waves and high energy neutrinos using LIGO, Virgo and ANTARES data from 2007", JCAP 1306 (2013) 008.

2013 M. Díaz in LSC collaboration author list "Parameter estimation for compact binary coalescence signals with the first generation gravitational wave detector network", Phys. Rev. D 88(2013) 062001.

2013, M.Díaz in Aasi et al, "Prospects for Localization of Gravitational Wave Transients by the Advanced LIGO and Advanced Virgo Observatories", arXiv:1304.0670.

2013, M.Díaz in Aasi et al, "Gravitational-waves from known pulsars: results from the initial detector era", Astrophys. J. 785 (2014) 119.

2013, M.Díaz in Aasi et al, "A directed search for continuous Gravitational Waves from the Galactic Center", Phys. Rev. D 88(2013) 102022.

2013, M.Díaz in Aasi et al, 'Search for long-lived gravitational-wave transients coincident with long gamma-ray bursts", Phys. Rev. D 88, 122004.

2013, M.Díaz in Aasi et al, A directed search for continuous Gravitational Waves from the Galactic Center, Phys. Rev. D 88(2013) 102022.

2013, M. Díaz in Aasi et al, Gravitational-waves from known pulsars: results from the initial detector era, submitted for publication arXiv:1309.4027.

2013, M. Díaz in Aasi et al, Constraints on cosmic (super)strings from the LIGO-Virgo gravitational-wave detectors, submitted for publication arXiv:1310.2384.

2013, M. Díaz in Aasi et al, "Prospects for Localization of Gravitational Wave Transients by the Advanced LIGO and Advanced Virgo Observatories", submitted for publication, arXiv:1304.0670

2013, M. Díaz in Aasi et al, Application of a Hough search for continuous gravitational waves on data from the 5th LIGO science run, submitted for publication arXiv:1311.2409.

2014, M. Díazin Aasi et al, Gravitational-waves from known pulsars: results from the initial detector era, Astrophys. J. 785 (2014) 119.

2014, M. Díaz in Aasi et al, First Searches for Optical Counterparts to Gravitational-wave

Candidate Events, ApJS 211 (2014) 7.

2014, M. Díaz in Aasi et al, Constraints on cosmic (super)strings from the LIGO-Virgo gravitational-wave detectors, Phys. Rev. Lett. 112 (2014) 131101.

2014, M. Díaz in Aasi et al, Application of a Hough search for continuous gravitational waves on data from the 5th LIGO science run, Class. Quantum Grav. 31 (2014) 085014.

2014, M. Díaz in Aasi et al, The NINJA-2 project: Detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations, Class. Quantum Grav. 31 (2014) 115004.

2014, M. Díaz in Aasi et al, Implementation of an F-statistic all-sky search for continuous gravitational waves in Virgo VSR1 data, Class. Quantum Grav. 31 (2014) 165014.

2014, M. Díaz in Aasi et al, Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005-2010, Phys. Rev D 89 (2014) 102006.

2014, M. Díaz in Aasi et al, Search for gravitational waves associated with gamma-ray bursts detected by the Interplanetary Network, Phys. Rev. Lett. 113 (2014) 011102.

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

2014, M. Díaz in Aasi et al, Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO600, LIGO, and Virgo detectors, Phys. Rev. D 89 (2014), 122004.

2014, M. Díaz in Aasi et al, First all-sky search for continuous gravitational waves from unknown sources in binary systems, Phys. Rev. Lett 113 (2014) 231101.

2014, M. Díaz in Aasi et al, Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009-2010 LIGO and Virgo Data, Phys. Rev. D 90 (2014), 062010.

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2014, M. Díaz et al, A program for optical observations of advanced LIGO early triggers in the southern hemisphere, EAS Publications Series, vol 67, 357 (2014).

2015, M. Díaz in Aasi et al, Characterization of the LIGO detectors during their sixth

science run, arXiv:1410.6211, Class. Quantum Grav. 32 (2015) 105012.

2015, M. Díaz in Aasi et al, Searching for stochastic gravitational waves using data from the two co-located LIGO Hanford detectors, Phys. Rev. D 91 (2015) 022003

2015, M. Díaz in Aasi et al, Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data, , Phys. Rev. D 91 (2015) 022004, arXiv:1410.7764

2015, M. Díaz in Aasi et al, A directed search for gravitational waves from Scorpius X-1 with initial LIGO, Phys. Rev. D 91 (2015) 062008, arXiv:1412.0605.

2015, M. Díaz in Aasi et al, Advanced LIGO, Class. Quantum Grav. 32 (2015) 074001, arXiv:1411.4547.

2015, M.C. Díaz in Abbott et al, Searches for continuous gravitational waves from nine young supernova remnants Astrophys.J. 813 (2015) 1, 39

2015, M.C. Díaz in Abbott et al, Searches for continuous gravitational waves from nine young supernova remnants arXiv:1412.5942

2015, M.C. Díaz in Abbott et al, A search of the Orion spur for continuous gravitational waves using a "loosely coherent" algorithm on data from LIGO interferometers arXiv:1510.03474

2015, M.C. Díaz in Abbott et al, First low frequency all-sky search for continuous gravitational wave signals, arXiv:1510.03621

2015, M.C. Díaz in Abbott et al, An all-sky search for long-duration gravitational wave transients with LIGO, arXiv:1511.04398

2016, M.C. Díaz in Abbott et al, Observation of Gravitational Waves from a Binary Black Hole Merger, Phys. Rev. Lett. 116, 061102 (2016)

2016, M.C. Díaz in Abbott et al, The Advanced LIGO Detectors in the Era of First Discoveries, arXiv:1602.03838

2016, M.C. Díaz in Abbott et al, First results from the search for binary black hole coalescence with Advanced LIGO, arXiv:1602.03839

2016, M.C. Díaz in Abbott et al, Properties of the binary black hole merger GW150914, Phys. Rev. Lett. 116 (24), 241102, arXiv:1602.03840

2016, M.C. Díaz in Abbott et al, Tests of general relativity with GW150914, Physical Review Letters. 116 (22), 221101, arXiv:1602.0384

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2016, M.C. Díaz in Abbott et al, Observing gravitational-wave transient GW150914 with minimal assumptions, PhysRevD.93.122004, arXiv:1602.03843

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134001, arXiv:1602.03844

2016, M.C. Díaz in Abbott et al, Search for transient gravitational waves in coincidence with short-duration radio transients during 2007-2013, Phys Rev D.93, 122008

2016, M.C. Díaz in Abbott et al, Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914 arXiv:1602.03845

2016, M.C. Díaz in Abbott et al, Astrophysical Implications of the Binary Black-Hole Merger GW150914, ApJL, 818, L22, 2016 arXiv:1602.0384

2016, M.C. Díaz in Abbott et al, GW150914: Implications for the stochastic gravitational-wave background from binary black holes, Phys. Rev. Lett.116, 131102, arXiv:1602.03847

2016, M.C. Díaz in Abbott et al, GW150914: First results from the search for binary black hole coalescence with Advanced LIGO, Phys Rev D.93.122003

2016, M.C. Díaz in A-Martínez, S., A André, M. et al, High-energy Neutrino follow-up search of Gravitational Wave Event GW150914 with IceCube and ANTARES, Phys. Rev. D 93, 122010 (2016) arXiv:1602.03847

2016, M.C. Díaz in Abbott et al, LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914, ApJL, 2016, 826, 1, L13.

2016, M.C. Díaz in Abbott et al, SUPPLEMENT: LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914 Astrophysical Journal Supplement Series, 225, 8.

2016, M.C. Díaz in Abbott et al, Search for Transient Gravitational Waves in Coincidence with Short Duration Radio Transients, Phys. Rev. D 93, 122008 (2016), arXiv:1605.01707

2016, M.C. Díaz in Abbott et al, GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. Physical Review Letters. 116 (13), 131103.

2016, M.C. Díaz in Abbott et al, Comprehensive All-sky Search for Periodic Gravitational Waves in the Sixth Science Run LIGO Data, Phys. Rev. D 94, 042002, arXiv:1605.03233.

2016, M.C. Díaz in Abbott et al, Phys. Rev. D 94, 064035 (2016), Directly comparing GW150914 with numerical solutions of Einstein's equations for binary black hole coalescence

2016, M.C. Díaz in Abbott et al, A First Targeted Search for Gravitational-Wave Bursts from Core-Collapse Supernovae in Data of First-Generation Laser Interferometer Detectors, Phys. Rev. D 94, 102001, arXiv:1605.01785.

2016, M.C. Díaz in Abbott et al, An improved analysis of GW150914 using a fully spin-precessing waveform model, Phys. Rev. X, 6, 041014, arXiv:1606.01262.

2016, M.C. Díaz in Abbott et al, GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence, Phys. Rev. Lett. 116, 241103 (2016), arXiv:1606.04855.

2016 M.C. Díaz in Abbott et al, Binary Black Hole Mergers in the first Advanced LIGO Observing Run, Phys. Rev. X 6, 041015 (2016), arXiv:1606.04856.

2016 M C. Díaz, M Beroiz, T Peñuela, Lucas M. Macri, Ryan J. Oelkers et al, GW150914: FIRST SEARCH FOR THE ELECTROMAGNETIC COUNTERPART OF A GRAVITATIONAL-WAVE EVENT BY THE TOROS COLLABORATION, ApJL, 2016, 828, 2, L16.

2016 M.C. Díaz in Abbott et al, Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project, Phys. Rev. D 94, 102002 (2016).

2016 M.C. Díaz in Abbott et al, Upper limits on the rates of binary neutron star and black-hole neutron-star mergers from Advanced LIGOs first observing run, ApJL, L21 arXiv:1607.07456

2016 M.C. Díaz in Abbott et al, The basic physics of the binary black hole merger GW150914, Annalen Phys. (2016) arXiv:1608.01940

2017 M.C. Díaz in Abbott et al, Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544, Phys. Rev. D 95, arXiv:1607.02216

2017 M.C. Díaz in Abbott et al, Exploring the Sensitivity of Next Generation Gravitational Wave Detectors, Clas. Quant. Grav. 34, 044001 arXiv:1607.08697

2017 M.C. Díaz in Abbott et al, All-sky search for short gravitational-wave bursts in the first Advanced LIGO run, Phys. Rev. D 95, 042003 arXiv:1611.02972

2017 M.C. Díaz in Abbott et al, Effects of waveform model systematics on the interpretation of GW150914, Class. Quantum Grav. 34 104002 arXiv:1611.07531

2017 M.C. Díaz in Abbott et al, Search for Gravitational Waves Associated with Gamma-Ray Bursts During the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B, Astrophys.J. 841, no.2, 89 arXiv:1611.07947

2017 M.C. Díaz in Abbott et al, Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run, Phys. Rev. Lett. 118, 121101, arXiv:1612.02029

2017 M.C. Díaz in Abbott et al, Directional limits on persistent gravitational waves from Advanced LIGO's first observing run, Phys. Rev. Lett. 118, 121102, arXiv:1612.02030

2017 M.C. Díaz in Abbott et al, First search for gravitational waves from known pulsars with Advanced LIGO, Astrophys.J. 839 (2017) no.1, 12, arXiv:1701.07709

2017 G. Valdes1, B. O'Reilly and M.C. Díaz, A HilbertHuang transform method for scattering identification in LIGO, Clas. Quant. Grav. 34, 23.

2017 M.C. Díaz in Abbott et al, Search for High-energy Neutrinos from Gravitational Wave Event GW151226 and Cantidate LVT151012 with ANTARES and IceCube, Phys. Rev. D 96, 022005 (2017) arXiv:1703.06298 2017 M.C. Díaz in Abbott et al, Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model, Phys. Rev. D 95, 122003 (2017) arXiv:1704.03719

2017 M.C. Díaz in Abbott et al, Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO, Phys. Rev. D 96, 022001 (2017) arXiv:1704.04628

2017 M.C. Díaz in Abbott et al, GW170104: Observation of a 50-Solar-Mass Binary Black

Hole Coalescence at Redshift 0.2, Phys. Rev. Lett. 118, 221101 (2017) arxiv:1706.01812.

2017 M.C. Díaz in Abbott et al, Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-Based Cross-Correlation Search in Advanced LIGO Data, ApJ 847, 47 (2017) arxiv:1706.03119

2017 M.C. Díaz in Abbott et al, All-sky Search for Periodic Gravitational Waves in the O1 LIGO Data, Phys. Rev. D 96, 062002 (2017) arxiv:1707.02667

2017 M.C. Díaz in Abbott et al, First low frequency Einstein@Home all-sky search for continuous gravitational waves in advanced LIGO data, Phys. Rev. D 96, 122004 (2017) arxiv:1707.02669

2017 M.C. Díaz in Abbott et al, First search for nontensorial gravitational waves from known pulsars, Phys. Rev. Lett. 120, 031104 (2018) arxiv:1709.09203

2017 M.C. Díaz in Abbott et al, GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence, Phys. Rev. Lett. 119, 141101 arxiv:1709.09660

2017 M.C. Díaz in Abbott et al, First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data, Phys. Rev. D 96, 122006 arXiv:1710.02327

2017 M.C. Díaz in Abbott et al, GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral, Phys. Rev. Lett. 119, 161101 arXiv:1710.05832

2017 M.C. Díaz in Abbott et al, Gravitational Waves and Gamma-rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A, Astrophys. J. Lett. 848, L13 (2017) arXiv:1710.05834 P1700308

2017 M.C. Díaz in Abbott et al, Multi-Messenger Observations of a Binary Neutron Star Merger, Astrophys. J. Lett. 848, L12 (2017) arXiv:1710.05833

2017 M.C. Díaz in Abbott et al, A gravitational-wave standard siren measurement of the Hubble constant, Nature 551, 85 (2017) arXiv:1710.05835

2017, M.C. Díaz, et al, OBSERVATIONS OF THE FIRST ELECTROMAGNETIC COUNTERPART TO A GRAVITATIONAL WAVE SOURCE BY THE TOROS COLLABORATION, ApJL, 848:L29.

2017 M.C. Díaz in Abbott et al, Astrophys. J. Lett, 850, L39 (2017) arXiv:1710.05836 P1700309 Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817

2017 M.C. Díaz in Abbott et al, On the progenitor of binary neutron star merger GW170817, Astrophys. J. Lett. 850, L40 (2017) arXiv:1710.05838

2017 M.C. Díaz in Abbott et al, GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences Submitted to Phys. Rev. Lett. arXiv:1710.05837

2017 M.C. Díaz in Abbott et al, Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory, Astrophys. J. Lett. 850, L35 (2017) arXiv:1710.05839

2017 M.C. Díaz in Abbott et al, Gravitational-wave Search for a Post-Merger Remnant of the Binary Neutron Star Merger GW170817, Astrophys. J. Lett. 851, L16 (2017) arXiv:1710.09320

2017 M.C. Díaz, LIGO detections and the birth of Gravitational Wave Astronomy, Boletn de la Asociación Argentina de Astronomía, vol. 59, p. 76-80.

2017 M.C. Díaz in Abbott et al, GW170608: Observation of a 19-solar-mass Binary Black Hole Coalescence, Astrophys. J. Lett. 851, L35 arxiv:1711.05578

2017 M.C. Díaz in Abbott et al, All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run, arXiv:1711.06843

2017 M.C. Díaz in Abbott et al, Constraints on cosmic strings using data from the first Advanced LIGO observing run, arxiv:1712.01168

Other non refereed publications

2015, Colazo, C. and Lambas, D. G. and Sanchez, B. and Dominguez, M. and Beroiz, M. and Penuela, T. and Díaz, M. C. (2015). LIGO/Virgo G184098: Observations from the TOROS collaboration.. GRB Coordinates Network. 18338 .

I had a column on Science and Society on Radio Nacional Buenos Aires, the most important public radio in Argentina. The column run live weekly for about 15 minutes from 2009 throughout 2011, and the content presented was published in my blog on Science, which can be consulted at: http://www.marioDíaz.org/Mario/Blog_de_Ciencia/Blog_de_Ciencia.html. From 2009 to 2011 I had published about fifty different columns to the blog on different scientific topics presented at a popular level.

2010 La maquina de dios, article appeared in the weekly journal Miradas al Sur, published in Buenos Aires (April 2010).

2011 Se puede parar el Apocalipsis?, article appeared in the weekly journal Miradas al Sur, published in Buenos Aires (March 18, 2011).

2016-2017 Several articles in Sputnik, https://mundo.sputniknews.com/blogs/201706011069626668-ciencia-espacio-agujero-negro-fisica/

Grants

1992-1995 Partnership for Academic Consulting and Training, Pittsburgh Supercomputing Center, Pittsburgh, PA, Principal investigator. (Cray CPU and training time).

1993-1995 National Science Foundation -DUE-9352376- (Instrumentation and Laboratory Improvement) Project: LAN Network Multimedia Computer LAB for the Enhancement of Science Instruction, Principal investigator ($110,000 total cost project).

1994-96 National Science Foundation -NCR-9318815- (Networks and Communication), Connection of Mercyhurst College to Prepnet and the Internet, Principal investigator. ($22,000).

1994 Wolfram Research Inc., educational grant for the installation of the computer program

MATHEMATICA on Mercyhurst Science Computer Lab. Principal Investigator ($8,000).

1995 National Science Foundation, -NCR-9318815- Research Experience for Undergraduates, Research project with two students on scientific computing and networking. Principal investigator ($10,000).

1995 National Science Foundation, ROA (Research Opportunity Award). PHYS 93-96246. Research in General Relativity and Quantum Gravity. Principal Investigator: Prof. Abhay Ashtekar (Penn State University). (Summer 1995). ($6,000).

1998 NASA, Faculty Awards for Research: Wave Profiles in Gravitational Radiation Astronomy. NASA-JPL contract No 961298;1998-2000. Principal Investigator .($207,000).

1999 NSF, Collaboration to Integrate Research and Education between UTB and LIGO, PHY-9981795, co-Principal Investigator, ($1,045,000).

2000 Kellogg Foundation ENLACE planning grant, PI ($100,000). Principal Investigator

2001 Kellogg Foundation and Houston Endowment, ENLACE grant, BASE (Brownsville Alliance for Science Education), PI, $1,700,000. Principal Investigator.

2001-2006 NSF Physics Frontier Center in Gravitational Wave Phenomenology at The Pennsylvania State University, (Sam Finn PI). I was involved as senior personnel.

2002-2007, NSF HRD-0206028 CREST program, Center for Systems Science Research, $400,000, Principal Investigator of the UTB subcontract.

2003-2007, NASA, NAG5-13396, University Research Center, Center for Gravitational Wave Astronomy, Principal Investigator and Center Director, $5,700,000.

2007-2012, NSF HRD0734800, Center for Research Excellence in Science and Technology, Expanding Interdisciplinary Research at the Center for Gravitational Wave Astronomy, Principal Investigator, $5,000,000.

2008 NSF HRD0734800, CREST supplement: Partnership with LIGO. Principal Investigator, $100,000.

2008 I have also been instrumental in discussing and advocating with UT system representative, Dr. Pedro Reyes, Associate Vice-Chancelor for Academic Affairs the need to support the recruitment of talented new faculty under the Stars Plus program. This resulted in the first start up awards ever to UTB from the Stars Plus program to recruit two new professors in Physics: Dr. Ahmed Touhami (start up funds $230,000.00) and Dr. Volker Quetschke (start up funds for $150,000).

2009 NSF HRD0734800, CREST supplement: Partnership with LIGO. Principal Investigator., $100,000.

2009 NASA#NNX09AV06A Center for Gravitational Wave Astronomy a NASA University Research Center group 5 grant. 9/1/2009-8/31/2014. Principal Investigator, $5,000,000.00.

2010 NSF HRD0734800, CREST supplement: Partnership with LIGO. Principal Investigator, $100,000.

2011 NSF HRD0734800, CREST supplement: Partnership with LIGO. Principal Investiga-

tor, $100,000.

2011, NSF and US Air Force, Research Experience for Undergraduates program, NSF-PHYS 1156600, REU and RET site in physics at The University of Texas at Brownsville, Principal Investigator, $474,900, 2012-2014.

2012, NSF CREST, NSF-HRD 1242090, The CGWA in the Era of Multimessenger Astronomy, Principal Investigator,, $5,000,000. 2012-2018.

2013 NSF Office of International Science and Engineering, PROGRAM SOLICITATION NSF 12-573 "Catalyzing New International Collaborations", awarded as a supplement request to the grant HRD-1242090 USA-Argentina collaboration: developing an astronomical site for Multimessenger astronomy in Cerro Macón, Argentina, Principal Investigator, $40,575.

2013 NSF HRD 1242090 CREST supplement The CGWA in the era of Gravitational Wave Astronomy: Partnership with the LIGO Hanford Laboratory, Principal Investigator, $100,000.

2014 NSF HRD 1242090 CREST supplement The CGWA in the era of Gravitational Wave Astronomy: Partnership with the LIGO Hanford Laboratory, Principal Investigator, $100,000.

2015, NSF, Research Experience for Undergraduates program, NSF-PHYS 1156600, REU and RET site in physics at UTRGV, Principal Investigator, $410,900, 2015-2018.

Speaking Engagements and Media appearances

More than 200 conferences and presentations at many universities in the USA and several countries abroad.

2006-present engagements only

Beyond Einstein, Reflections of an Americano Physicist, Keynote Speaker Annual meeting of the National Society of Black Physicists, February 2006, San Jose, California.

Increasing our Knowledge of the Universe with a New Astronomy: LIGO, and the gravitational wave observatories, University of Houston, Department of Physics colloquium, March 2006, Houston, TX.

LIGO: A status report and a look at the future, Relativistic Astronomy Workshop Nanjing University, Nanjing, China, August 12, 2006.

Astronomia de Ondas Gravitacionales: Estado del campo y desafios, invited conference in a series commemorating the 50th anniversary of the Faculty of Mathematics, Astronomy and Physics, National University of Cordoba, Cordoba, Argentina, August 2006.

Astronomia de Ondas Gravitacionales: Estado del campo y desafios, Instituto Tecnologico de Monterrey, Monterrey, Mexico and Universidad Autonoma de Nuevo Leon, both in Monterrey, Mexico, October 2006.

Increasing our Knowledge of the Universe with a New Astronomy: LIGO, and the gravitational wave observatories, Texas Southern University, Department of Physics colloquium, October 2006, Houston, TX.

Increasing our Knowledge of the Universe with a New Astronomy: LIGO, and the gravitational wave observatories, invited plenary talk in a session on Our Present Knowledge of the Universe moderated by Nobel laureate Steven Weinberg, Fourth Annual Conference of The Academy of Medicine, Engineering and Science of Texas (TAMEST), Austin, Texas, January 4 2007. A video of this conference is available online at the website of the Academy of Medicine, Engineering and Science of Texas, at: http://www.tamest.org/archive/2007/

Gravitational Wave Astronomy: From Dream to Reality, SACNAS National Conference, October 2007, Tampa, Florida.

Gravitational Wave Astronomy: Will it ever exist? Invited Departmental Colloquium, University of Texas at Arlington, February 2008.

La Astronomia de Ondas Gravitacionales: Presente y Futuro, Universidad de Guadalajara, Guadalajara, Jalisco, Mexico, March 2008.

La Astronomia de Ondas Gravitacionales: Presente y Futuro, Instituto de Astronomia y Fisica del Espacio, Universidad Nacional de Buenos AIres, june 2008 and Astronomical Observatory, Universidad Nacional de La Plata, also June 2008.

Gravitational Wave Astronomy: A status report, Invited talk, joint meeting of the Four Corners section and the Texas section of the American Physical Society, El Paso, Texas October 2008.

La Astronomia de Ondas Gravitacionales: resultados recientes, Instituto Tecnologico de Estudios Superiores de Monterrey, Monterrey Mexico, October 2008.

Gravitational Wave Astronomy: A status report, invited talk, Department of Physics, Texas A&M Commerce, November 6, 2008.

Gravitational Wave Astronomy: Are we there yet?, invited talk, Department of Physics and Astronomy, Florida A&M University, Tallahassee, March 5 2009.

Una nueva Astronomia: la astronomia basada en la observacion de la radiacion gravitacional, Invited talk, Universidad Metropolitana, San Juan, Puerto Rico, January 23, 2009.

Deteccion de Ondas Gravitacionales: la Astronomia del siglo XXI, Facultad de Matematica y Astronomia, Invited talk, Universidad Nacional de Cordoba, Cordoba, Argentina, May 14, 2009.

Deteccion de Ondas Gravitacionales: la Astronomia del siglo XXI, Instituto Universitario Aeronautico, Cordoba, Invited talk, Argentina, May 15, 2009.

Deteccion de Ondas Gravitacionales: la Astronomia del siglo XXI, Invited talk, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de Catamarca, Catamarca, Argentina, May 21, 2009.

Gravitational Wave Astronomy: How much longer will it take?, invited talk, Texas A&M University Kingsville, April 20, 2010.

La Astronomia de ondas gravitacionales Cuanto falta? Instituto de Astronomia Teorica y Experimental -University of Cordoba, Mircoles, 19 de Mayo 2010.

A short history of gravitational wave detection: from paradigm to experiment, invited talk

LIGO Hanford Observatory August 24, 2010.

Cosmological Gravitational Waves, invited talk, LIGO Hanford Observatory August 26, 2010.

Will Advanced LIGO Deliver?, invited talk, University of Texas at Dallas, January 26, 2011.

A short history of gravitational wave detection: from paradigm to experiment, Austin Science and Engineering Festival, invited by the Mexican American Engineering Society, Austin, Texas, October 24, 2010.

CGWA: FROM RAGTAG TO RICHES A history of success under NASA sponsorship, NASA URC Directors meeting, Morgan State University, Baltimore, February 8, 2011.

Will Advanced LIGO deliver?, invited talk UT Dallas, department of physics colloquium, January 26, 2011.

How soon will Gravitational Waves be detected? From initial LIGO to Advanced LIGO, GRAV 11 (international conference) , La Cumbre Cordoba, Argentina, April 13, 2011 (invited plenary talk).

The Center for Gravitational Wave Astronomy, June 7, 2011, Washington DC, NSF JAM meeting.

Cuando se detectaran las ondas gravitacionales, de LIGO inicial a LIGO avanzado, Instituto de Astronomia y Fisica del Espacio, Buenos Aires, July 6, 2011, invited talk.

UTB at the top of the world: can we see gravitational waves?, UTB physics department colloquium, November 4, 2011.

Conversations with a scientist, workshop on scientific methodology with about 50 patients from a therapy group at Hospital Frances, Buenos Aires, December 30, 2011.

La próxima revolución en Astronomía, Los mensajeros múltiples, invited talk 400 anniversary of Universidad Nacional de Córdoba, Córdoba, Argentina, August 23, 2012.

The TOROS project, GAIA alerts workshop, Bologna, Italy, September 6, 2012.

Educating and mentoring underrepresented minorities through competitive research at UTB's CGWA, invited Astrophysics colloquium, NASA Goddard Space Flight Center, Greenbelt, Maryland, September 25, 2012.

Astronomy at the top of the world: Can we see gravitational waves from here?, Department of Physics colloquium, The University of Texas at El Paso, El Paso, Texas, October 12, 2012.

The TOROS project, MIT astrophysics seminar, Cambridge, Massachusetts, November 15, 2012.

The Center for Gravitational Wave Astronomy at The University of Texas at Brownsville, invited talk APS March meeting, Baltimore, MD, 3/19/2013.

The thunder and the lightning: UTB efforts to see the sounds of gravity, UTB CSMT seminar 1/23/2013.

The thunder and the lightning: The TOROS project and the Advanced LIGO era, invited talk F2F meeting, Cordoba, April 8-10, 2013, Astronomical Observatory of Cordoba.

THE TOROS PROJECT: Optical astronomy for the Advanced LIGO era, Lorentz Workshop, Leiden , Netherlands, May 16, 2013.

Observando el trueno y el relmpago simultaneamente, LIGO Avanzado y el proyecto TOROS, invited talk Argentina Institute of Radio Astronomy (IAR), La Plata, June 19, 2013.

Observando el trueno y el relmpago simultaneamente, LIGO Avanzado y el proyecto TOROS, invited talk Institute of Astronomy and Space Physics, Buenos Aires, June 24, 2013.

Getting TOROS in the bullring, First TOROS International Workshop, Salta, Argentina, June 27 2013.

TOROS: Optical Robotic Observatory of the South, LVC workshop with Astronomers, Chicago, 9/10/2013.

TOROS nel deserto e la montagna, invited talk Instituto de fisica, Universit degli Studi di Urbino Carlo Bo, Urbino, september 29, 2013.

TOROS, invited talk Osservatorio Astronomico di Roma, October 4, 2013, Rome, Italy.

The TOROS project, Hot-wiring the Transient Universe III workshop, Santa Fe, NM, November 15-17, 2013 (poster).

TOROS, meeting with Consejo Asesor de Astronomía y Ciencias del Universo, Ministerio de Ciencia, Tecnología e Innovación Productiva, Buenos Aires, Noviembre 21, 2013. Presentation to request funding from Argentine MinCyT for the TOROS project.

A program for optical observations of advanced LIGO and VIRGO triggers in the southern hemisphere. Gravitational Wave Physics and Astronomy Workshop, Pune, India, 12/19/2013 (talk and poster).

Monday night physics, UTB, presentation on the BICEPS results on the gravitational wave background, 5/5/2014.

The thunder and the lightning, invited Physics colloquium, Texas Southern University, Houston, 4/30/2014.

The thunder and the lightning, invited Physics seminar, UT Pan American, 4/24/2014.

Ciencia y Sociedad, presentation to Abuelos del Frances, a senior support community group in Buenos Aires, Argentina, 7/25/2014.

The thunder and the lightning, invited Physics colloquium, UT Arlington, 9/30/2014.

CENTER FOR GRAVITATIONAL WAVE ASTRONOMY, 2003-2014, presentation at the NASA University Research Centers directors MIRO PI meeting, NASA Marshall Space Flight Center, Huntsville, Alabama, 16/9/2014.

The Earth, the Moon and the Sun, class presentation (2 hours) to 100 5th grade students at Canales Elementary, 11/5/2014.

A program for optical observations of advanced LIGO early triggers in the southern hemisphere, "The Milky Way Unraveled by Gaia, GREAT international meeting, Barcelona, Spain, 12/1/2014-12/5/2014, poster.

Rockets, Telescopes and Black Holes, presentation made at Grade 3 Ps 144 Col. Jeromus Remsen School, New York, NY, February 13, 2015.

CGWA, poster presented jointly with Matt Benacquista, NSF JAM session HR division, Washington DC Feb, 2015.

Searching for the first kilonova, invited plenary talk FoF International meeting, Cordoba, April 5, 2015.

A new window to observe the universe, The 11th Annual Olan Kruse Lecture (invited talk), Texas A& M University Kingsville, April 23, 2015.

A program for optical observations of advanced LIGO early triggers in the southern hemisphere, contributed talk and poster, Gravitational Wave Astrophysics and Physics Workshop, Osaka, Japan, June 14, 2015.

Astronomy at UTRGV, invited talk, Building Astronomy in Texas, Texas A&M College Station, September 24, 2015.

The first detection: the birth of gravitational wave astronomy, Invited Physics Colloquium, University of Houston Clear Lake, February 29, 2016.

100 years of Einstein's general Relativity, NSF Joint Annual Meeting CREST Directors PIs , February 23, 2016.

The first detection: the birth of gravitational wave astronomy, UTRGV, Physics department, March 11, 2016.

Time Domain Astronomy in Co Macón, invited presentation, USAF workshop on Space Situational Awareness, La Serena, Chile, April 13, 2016.

Gravitational Wave Astronomy at UTRGV, invited talk at Center for STEM Education Excellence, Edinburg, April 23, 2016.

The birth of Gravitational Wave Astronomy, invited plenary, FOF meeting, Astronomical Observatory, Cordoba, Argentina, March 31, 2016.

El nacimiento de la Astronomía de Ondas Gravitacionales, invited Colloquium, Department of Physics, Universidad Nacional De Córdoba, , March 30, 2016.

El nacimiento de la Astronomía de Ondas Gravitacionales, invited talk for the general public, More than 200 people attending, CEPRAM, Cordoba, April 1, 2016.

Multimessenger Astronomy, presentation to REU/RET participants, UTRGV, Brownsville, June 24, 2016.

La detección de LIGO y el futuro de la Astronomía de Mensajeros Multiples: Que se puede hacer en la Argentina?, invited Colloquium, Department of Physics Universidad Nacional de Buenos Aires, Buenos Aires, Argentina, June 3, 2016

La detección de LIGO y el nacimiento de la Astronomía de Ondas Gravitacionales: Que es lo que se viene ahora?, invited Colloquium, Astronomical Observatory of La Plata, La Plata Planetarium, Universidad Nacional de La Plata, La Plata Argentina, June 8, 2016.

Una nueva ventana al universo: el descubrimiento científico del siglo: las ondas gravitacionales, General public presentation (250 people), Hospital Cesar Milstein, Buenos Aires, June 11, 2016

La detección de LIGO y el nacimiento de la Astronomía de Ondas Gravitacionales, Invited Colloquium, Centro de Investigación y Desarrollo en Ciencias Aerospaciales (CIDCA), Fuerza Area de Chile, through videoconference, August 24, 2016.

La detección de LIGO y el nacimiento de la Astronomía de Ondas Gravitacionales, Invited plenary talk, 59 reunion Anual de la Asociacin Argentina de Astronoma, San Juan, 22 de setiembre de 2016.

The era of gravitational wave astronomy: and now what?, Invited talk, Univ. Of California Irvine, October 12. 2016.

The era of gravitational wave astronomy: how many black holes are out there? invited plenary talk, VILGCMM16, Colegio de Mexico, Mexico DF, September 7, 2016

The CGWA in the Era of Multimessenger Astronomy, presentation at the annual meeting of CREST Directors, NSF, Washington DC, 3/2/17.

The quest of a century: The mysteries, failures, uncertainties and final success in proving Einstein right after 100 years, Invited department colloquium, Oklahoma State University, Stillwater April 13, 2017.

Observing the first kilonova, Invited HEP colloquium, University of Oklahoma, delivered through IV from Stillwater, Oklahoma, April 13, 2017.

The quest of a century: The mysteries, failures, uncertainties and final success in proving Einstein right after 100 years, Invited annual conference SACNAS local chapter, Texas Tech University, Lubbock, Texas, April 27, 2017.

El futuro de la Astronomía Argentina y las Ondas Gravitacionales, Invited talk, Academia Nacional de Ciencias, Córdoba, Argentina, 9 de Mayo de 2017.

The first GW observations, GW150914, GW151226, GW170104 and the electromagnetic follow-up of GW150914, Invited talk, Frascati Workshop 2017, Palermo, Italy, 6/12/2017.

The TOROS project, Invited talk, Frascati Workshop 2017, Palermo, Italy, 6/16/2017.

The TOROS project to search foroptical counterparts of gravitational waves, Invited talk, The Amazing Life of the Stars, Cefalu, Italy, 10/ 8/ 2017.

Crónica de una bsqueda esperada: la primera kilonova, invited seminar, IATE, Observatorio de Cordoba, Cordoba, Argentina, October 26, 2017.

Crónica de una bsqueda esperada: la primera kilonova, invited department Colloquium, Department of Physics, University of Buenos Aires, 400 people attending, Buenos Aires, Argentina, October 24, 2017.

Polvo de estrellas: de donde viene todo el oro?, general public talk, Cesar Milstein Hospital, Buenos Aires, Argentina, November 17, 2017.

Polvo de estrellas: de donde viene todo el oro?, invited talk, Strings@ar, National Conference, San Martin, Argentina, 9/11/2017.

¿ Son las kilonovas la principal fuente de procesos nucleares r en el universo ?, Invited colloquium, National Atomic Commission (CNEA), Buenos Aires, Argentina, 11/16/2017.

What is Astronomy?, talk to Veterans Memorial High School Students, Brownsville, TX, September 14, 2017.

El amanecer de la Astrofísica de Mensajeros Multiples, Press conference, several media attending, national Research Council CONICET, Buenos Aires Argentina, 10/18/2017.

Optical follow-up of gravitational wave triggers by the TOROS collaboration, contribution to Annual American Astronomical Society, Washington DC, February 10, 2018.

The Center for Gravitational Wave Astronomy at The University of Texas Rio Grande Valley, a partnership success story, Invited presentation, NSF panel on partnerships success, Washington DC, 2/22/2018

Media appearances

Recent interviews:
Radio Cultura FM 97.9, https://www.youtube.com/watch?v=h1-rDGQ6S34

https://www.youtube.com/watch?v=frka1ayu0kY

Primero Noticias Rio Cuarto https://www.youtube.com/watch?v=CZa0tkcS7cU

El Otro Mate https://www.youtube.com/watch?v=t7hDyOOtJXA

http://www.infobae.com/2016/05/21/1813081-de-obrero-textil-y-sindicalista-astrofisico-reconocimiento-mundial/

Perfil Buenos Aires, daily, February 12, 2016.

La Nacion Magazine March 27, 2016.

Radio Maria, March 28, 2016.

Radio Mitre, February 12, 2016.

National Public Radio Argentina, Interview with Eduardo Anguita, June 11, 2016.

San Antonio Express, February 11, 2016.

TN News Channel Buenos Aires, February 11, 2016.

El Tiempo, Colombia, February 11, 2016:
http://www.eltiempo.com/estilo-de-vida/ciencia/ondas-gravitacionales-y-sus-implicaciones/16509491

Radio del Plata, Buenos Aires, June 11, 2016.

Radio Provincia, La Plata, Argentina, February 11, 2016.

Business Insider, interview by Jessica Orwig, http://www.businessinsider.com/who-will-win-nobel-prize-in-physics-for-gravitational-waves-2016-2.

Radio Mexico, February 11, 2016

Channel 4, Cordoba, April 10, 2016.

https://mundo.sputniknews.com/entrevistas/20160701/1061447230/mario-Díaz-exobrero-renault-einstein.html

http://www.conicet.gov.ar/nuevos-anuncios-sobre-ondas-gravitacionales-aportes-de-cientificos-argentinos/

$http://argentinainvestiga.edu.ar/noticia.php?titulo = ondas_gravitacionales,_cientificos_del_a_unc_participan_e$
2651#.V97IYGWqQRE

http://www.mdzol.com/nota/678307-aportes-argentinos-a-las-ondas-gravitacionales/

http://www.diariometannoticias.com/salta/salta-a-la-altura-de-las-grandes-potencias-se-instalara-en-cerro-macondo-un-observatorio-de-ondas-gravitacionales/

Teaching

(My lectures for courses taught recently are available at: http://marioDíaz.org/)

Theoretical Mechanics (graduate and undergraduate level),

Astronomy II (calculus based),

Astronomy,

Introduction to Astrophysics (graduate).

Mathematical Methods of Physics (graduate and undergraduate level),

Quantum Mechanics I and II,

Introductory Physics I and II (both calculus and non calculus based).

Science and Technology,

Electrodynamics (graduate).

Introduction to Quantum and Gauge Field Theories (graduate),

Introduction to General Relativity and Gravitation (graduate),

Journal Clubs for the History and Philosophy of Physics,

Modern Physics,

Electromagnetism (graduate and undergraduate level),

Computational Physics

Several lectures at the First Chinese Summer School on Gravitational Wave Astronomy, July-August 2006. and a doctoral course on Introduction to Gravitational Wave Astronomy at the University of in Catamarca, Argentina, May 2007.

A course on Introduction to Gravitational Wave Astronomy at the University of Catamarca, taught in 2007 and in 2009, at UTRGV in 2014, and at University of Buenos Aires on September-November 2017.

Introduction to Astronomical Photometry.

Observational Astronomy.

Graduate students supervised

Doctoral past: Cristina Torres (PhD received 2009) thesis: Gravitational Wave Detection Methods for Long Duration Bursts. Guillermo Valdes (PhD received June 2018), thesis: DATA ANALYSIS TECHNIQUES FOR LIGO DETECTOR CHARACTERIZATION. Martin Beroiz (PhD received June 2018), thesis: OPTICAL COUNTERPARTS TO GRAVITATIONAL WAVES.

Currently:
Doctoral: Karla Ramirez, Moises Castillo.

MS: Richard Camuccio, Americo Hinojosa Lee, Juan Garcia, Ervin Vilchis.

Past MS students: Pablo Daveloza, Guillermo Valdes, Cristina Torres, Gabriela Gonzalez, Juan Cruzate, Nicolas Konverski, Walter Ortega, Samanta Fuentes , Karla Ramirez, Alan Hendrick.

Postdoctoral scientists supervised

Claudia Moreno, 2001-2002.
Eduardo Dominguez (Fullbright scholar), 2011.
Mariano Dominguez, 2013-2014.
Tania Peñuela, 2015-2017.
Martin Beroiz, 2017-current.
Adam Zadrozny, 2017-current.

Service

APS Committee on Minorities 2018-2020.

Texas section American Physical Society, chair for the 2012 period (elected 2009 vice chair, chair elect and past chair).

LIGO Scientific Collaboration Council, member (2003-present).

LIGO CGWA-UTRGV group, PI of the MOU with the LIGO Laboratory since 2003 to present.

Texas Higher Education Coordinating Board, Graduate Education Advisory Committee, member 2005-2009.

Executive Committee member of CONTACT (Consortium for Nanomaterials for Aerospace Commerce and Technology) integrated by UT Austin, UT Dallas, UT Arlington, Rice, UT Pan-American, U. of Houston and UTB (2003-2010).

The University of Texas at Brownsville, University Research Council, member since 2010-2014.

Member Scientific Organizing Committee of the 14th Gravitational Wave Data Analysis Workshop, Rome Italy, January 19-22, 2010.

Chair Scientific organizing Committee 13th Gravitational Wave Data Analysis Workshop, 2009, San Juan Puerto Rico.

Chair Scientific organizing Committee 10th Gravitational Wave Data Analysis Workshop, 2005, Brownsville, Texas.

Member of the Committee of Visitors reviewing NSF physics program for the triennium 2000-2003

Senior investigator, Center for Gravitational Wave Physics (NSF frontier center at Penn State), 2001-2006.

Chair Local Organizing Committee, Fall meeting of the Texas section of the American Physical Society, 2000.

1998-1999 Member elected of the University of Texas at Brownsville Senate.

Chair Department of Physics, Mercyhurst College, 1994-1996.

1993 Member elected of Mercyhurst College Senate.

Reviewer
NSF, NASA, Louisiana Board of Regents, Keck Foundation, Argentine National Research Council, Ireland National Research Council, South African Research Agency.

Referee
Classical and Quantum Gravity, Journal of Physics A, Monthly Notices of the Royal Astronomical Society, Physical Review Letters.

Synergistic Activities

2009 Columnist on Science and Development, in the program Carbono 14, Radio Nacional, Buenos Aires Argentina 870 AM, http://www.radionacional.com.ar/ My participation consists in speaking weekly for about 10-15 minutes on a variety of subjects related to science and current events. I keep a blog with the columns that can be accessed at: http://www.marioDíaz.org/Mario/Blog_de_Ciencia/Blog_de_Ciencia.html

2009 I led the effort of several junior faculty members to develop an experimental program

in nano-photonics at UTB.

2009 I am leading the effort to establish a partnership with Semtech, a semiconductor manufacturing company located in the Rio Grande Valley to develop a semiconductor fabrication laboratory at UTB to perform research and development in Silicon Carbide semiconductors for the company.

2008 I promoted and developed official agreements for academic exchange between The National University of Catamarca, Catamarca, the Instituto Universitario Aeronautico from Cordoba and the National University of Cordoba, from Cordoba, all in Argentina.

2007 I supervised (with W. Anderson) and have been instrumental in implementing the graduation of one of the few Hispanic PhD in Physics in the state of Texas during that year through the agreement with UT Dallas.

1998- 2007 I constructed an Astronomical Observatory on UTB campus. Project design and supervision.

2004-2008 Developed a proposal for a PhD. in physics which was recently approved by the UT system. The full proposal was approved by UTB administration in 2005. Since then several attempts were taken to have it approved by the UT system. Finally this past year the UT system approved a cooperative agreement with The University of Texas at San Antonio that will allow for the complete offering of the first Ph D program at the UTB campus.

2003, Leader of a departmental effort to develop a new graduate degree: M.S. in Physics, approved by THECB in January 2004.

2002, Developed a cooperative doctoral program in Physics with UT Dallas.

2001 Member of the Scientific Organizing Committee, Gravitational Wave Phenomenology workshop, State College. PA, November 6-8 2001.

2000, Developed a cooperative master program in Physics with UTEP.

2000-2004 Directed the ENLACE program which consisted in developing both a teacher training program as a graduate track with the school of Education and a sequence of Physical Science courses for elementary education majors. The purpose of the program was to train prospective teachers and in service teachers with hands on, inquiry based methods physical science. During these years I had a strong interaction with BISD and BISD teachers.

1997-2001 Developed and received THECB approval for a new degree program: Bachelor of Science in Engineering Physics.

1997-98 Design and Installation of Computerized laboratories for the Introductory Physics courses. Design and Installation of a Modern Advanced Undergraduate Physics laboratory. Design and Installation of a Scientific Visualization Computer laboratory with SGI machines. Design and configuration of a departmental computer network.

1997 Member of the Organizing Committee of the First USA-MEXICO Workshop on the teaching of Freshman Physics.

1996 Founding member of the National Society of Hispanic Physicists

1995 Organizer of the Western PA section of AAPT Fall meeting held at Mercyhurst Uni-

versity, Erie, PA. October 7 1995

1994-95 Development of an Internet site and Campus Network Coordinator at Mercyhurst University.

1994-95 Design and installation of a Multimedia Science computer laboratory with five Silicon Graphics workstations (one ELAN and four Indys) and fifteen Pentiums, with video soundcards and CDROMs, big screen projection system connected to the Internet.

1994-95 Creation and development of the Department of Physics and Astronomy and Physics major program (including hiring and supervision of an Assistant Professor, two adjuncts and one Physics laboratory Director). Coordinator of the 3+2 Engineering program. Secured agreements with the Schools of Engineering from the University of Pittsburgh and Penn State University.

1994 Design of a Physics Education major program at Mercyhurst University, reviewed in site and approved by the Department of Education of the State of Pennsylvania.