

## I. PERSONAL INFORMATION

Wilson J. González-Espada  
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College of Science, Morehead State University  
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## II. EDUCATION

**Ph.D., Science Education**, The University of Georgia, Athens, GA, May 2001

**M.A., Science Education**, Interamerican University of Puerto Rico, San Germán, PR, May 1997

**B.A., Secondary Education-Physics**, University of Puerto Rico, Río Piedras, PR, May 1993

## III. ACADEMIC POSITIONS

**Professor of Physics and Science Education, 2018-present.**

**Associate Professor of Physics and Science Education, 2008-2018.**

College of Science, Morehead State University, Morehead, KY

- HON 215, [History of Physical Science in] The Modern World: Honors Core IV
- SCI 103, Introduction to Physical Science
- SCI 104, Modern Issues and Problems in the Physical Sciences
- SCI 111, Inquiry Physical Science for Elementary Teachers
- SCI 490, Science for the Elementary Teacher
- SCI 491/691, Science for the Middle School Teacher
- PHYS 109, A History of the Universe
- PHYS 201, Elementary Physics I
- UTCH 250, [Historical] Perspectives on Science and Mathematics

**Associate Professor of Physical Science/Science Education, 2007-2008.**

**Assistant Professor of Physical Science/Science Education, 2001-2007.**

School of Physical and Life Science, Arkansas Tech University, Russellville, AR

- PHSC 1013, Introduction to Physical Science, Lecture
- PHSC 1021, Introduction to Physical Science, Lab
- PHYS 1114, Applied Physics Lecture and Lab
- PHYS 2014-2024, Physical Principles I and II
- PHSC 3213, Science in Elementary and Middle School Education
- PHSC 4701, Special Methods in Physical Science Education
- PHYS 4992, Special Problems in Physics: Guided Experiences in Physics Instruction
- PHSC 4883, Multicultural Science and Math Education
- NUR 4992, Differential Healthcare Issues: Hispanics in Arkansas

### **Instructor of Physics and Mathematics, 1996-1998**

Department of Physics and Mathematics, Instituto Tecnológico de Puerto Rico, Ponce, PR

- FISI 1105-1205, Applied Physics
- MATE 1111-1112, Technical Mathematics.

### **Physics and Chemistry Teacher, 1994-1995**

### **Geometry and Algebra Teacher, 1993-1994**

Notre Dame High School, Caguas, PR

## **IV. PROFESSIONAL EXPERIENCE**

- 2019 **Summer Research Fellow**, Air Force Research Lab Faculty Fellowship Program, Department of Physics, United States Air Force Academy, Colorado Springs, CO.
- 2018 **External Proposal Evaluator**, National Agency for Investigation and Innovation (ANII), María Viñas Fund, Montevideo, Uruguay.
- 2016-17 **Director, International Education**, Morehead State University, Morehead, KY.
- 2014-17 **Grant Program Evaluator**, Cybernetic Girls can be Pinky, Teaching to Increase Diversity and Equity in STEM (TIDES), Project Kaleidoscope, American Association of Colleges and Universities, University of PR Humacao Campus.
- 2012-13 **Pre-College Summer Science Research Coordinator**, Morehead State University/Universidad Metropolitana/NSF partnership (12 student-researchers).
- 2010 **Program Evaluator**, Peer Mentoring and Undergraduate Research, Space Science Program, Morehead State University, Morehead KY.
- 2009 **Program Evaluator**, Undergraduate Fellowship Program, Morehead State University, Morehead, KY.
- 2009-present **Physics Science Test Item Writer**, Measured Progress, Dover, NH.
- 2008-present **Fairness issues consultant** (science test passages and items), ACT Inc, Iowa City, IA.
- 2008 **Summer Research Fellow**, Department of Pediatrics, University of Arkansas for Medical Sciences, Little Rock, AR
- 2005 **Summer Research Fellow and REU Co-Mentor**, Center for the Analysis and Prediction of Storms, National Weather Center, Norman, OK
- 2005-08 **Physical Science Laboratory Coordinator**, Department of Physical Science, Arkansas Tech University
- 2004 **Summer Research Fellow**, Center for Applied Research and Evaluation, Arkansas Children's Hospital/University of Arkansas for Medical Sciences, Little Rock, AR
- 2003 **Summer Visiting Scholar**, Center for Fairness in Assessment, Educational Testing Service, Princeton NJ.
- 2002-08 **University Supervisor** of four student teachers in physical science education, Arkansas Tech University, Russellville, AR.
- 2000-01 **University Supervisor** of seven student teachers in science education, The University of Georgia, Athens, GA.
- 1999 **Summer Research Intern**, Hispanic Association of Colleges and Universities USDA Forest Service, Athens, GA.

1998-2001     **Research Assistant**, The University of Georgia, Athens, GA.  
1994           **Summer Research Intern**, University of Wisconsin Medical School, Madison, WI.

#### **V(a). SCHOLARLY ACTIVITIES: REFEREED PUBLICATIONS**

- González-Espada, W. J., Pérez-Aguirre, R., and Sarasola, M. (2017). Perception of Science-Technology-Society (STS) topics among Uruguayan college students: Implications for high school curricular reform. *Bulletin of Science, Technology & Society*, 37(1), 15-22.
- González-Espada, W. J. and Carrasquillo, R. E. (2017). Puerto Rico: Race, ethnicity, culture, and physics teaching. *The Physics Teacher*, 55(6), 334-337.
- González-Espada, W. J., Díaz-Muñoz, G., Feliú-Mójer, M., Flores-Otero, J., Fortis-Santiago, Y., Guerrero-Medina, G., López-Casillas, M., Colón-Ramos, D., Fernández-Repollet, E. (2015) Assessing a graduate school science recruitment symposium. *Cuadernos de Investigación en la Educación*, 30, 11-36. <http://cie.uprrp.edu/cuaderno/numero-30/>
- Knell, J. L., Wilhoite, A. P., Fugate, J. Z., & González-Espada, W. J. (2015). Using Item Response Theory to improve locally-constructed multiple choice tests: Measuring knowledge gains and curricular effectiveness. *Electronic Journal of Science Education*, 19 (7). Retrieved from <http://ejse.southwestern.edu/issue/view/1213>.
- González-Espada, W. J., Llerandi-Román, P., Fortis-Santiago, Y., Guerrero-Medina, G., Ortiz-Vega, N., Feliú-Mójer, M., Colón-Ramos, D. (2014). Impact of culturally relevant contextualized activities on elementary and middle school students' perceptions of science: An exploratory study. *International Journal of Science Education B – Communication and Public Engagement*, 5(2), 182-202.
- Wilhoite, A. P., Knell, J. L., and González-Espada, W. J. (2014). Use of herbal supplements among college students in Eastern Kentucky: Impact factors. *Journal of the Kentucky Academy of Science*, 75 (1-2), 53-68.
- Guerrero-Medina, G., Feliú-Mójer, M., González-Espada, W., Díaz-Muñoz, G., López, M., Díaz-Muñoz, S., Fortis-Santiago, Y., Pérez-Otero, J., Craig, D., and Colón-Ramos, D. A. (2014). Supporting diversity in science through social networking. *PLOS Biology*, 11(12), e1001740.
- González-Espada, W. J., Fortis-Santiago, Y., Guerrero-Medina, G., Ortiz-Vega, N. M., Colón-Ramos, D., and Feliú-Mójer, M. (2013). Suplementando el currículo de ciencias con contenido contextual y culturalmente relevante: Lecciones de la implementación del Proyecto Ciencia Boricua. *Cuadernos de Investigación en la Educación*, 28, 109-127.
- González-Espada, W. J. (2012) Falling PC solitaire cards: An open-inquiry approach. *The Physics Teacher*, 50(6), 365-366.
- O'Dell, G. A. and González-Espada, W. J. (2011). Going underground. *The Science Teacher*, 78(9), 39-43.
- González-Espada, W. J. (2011). Perceptions of school science teaching as a career among science majors. *Journal of Science Education/REC*, 12(2), 82-86.
- González-Espada, W. J., Birriel, J., and Birriel, I. (2010). Discrepant events: A challenge to students' intuition. *The Physics Teacher*, 48(8), 508-511.
- González-Espada, W. J., Birriel, J., and Birriel, I. (2010). Our planet from space: Pedagogical implications of the DISH Earth channel. *Astronomy Education Review*, 9(1), 010302, 10.3847/AER2009054.

- Haight, A. D. and González-Espada, W. J. (2009). Science literacy in Appalachia through contextually relevant experiences: The “Reading the River” project. *International Journal of Environmental and Science Education*, 4(3), 215-230.
- González-Espada, W. J. (2009). Preservice teacher education online: Students’ opinions from a science methods course. *Journal of the Kentucky Academy of Science*, 70(1), 84-93.
- González-Espada, W. J. (2009). College students’ opinions of engaging approaches in a physical science course. *Journal of College Science Teaching*, 38(5), 18-23.
- González-Espada, W. J., Hall-Barrow, J., Hall, R. W., Burke, B. L., and Smith, C. E. (2009) Peds PLACE: Quality continuing medical education in Arkansas. *Journal of the Arkansas Medical Society*, 105 (9), 211-213.
- González-Espada, W. J., Hall-Barrow, J., Hall, R. W., Burke, B. L., and Smith, C. E. (2009) Achieving success connecting academic and practicing clinicians through telemedicine. *Pediatrics*, 123(3), e484-e491.
- González-Espada, Wilson J. (2009). Detecting gender bias through test item analysis. *The Physics Teacher*, 47(3), 175-179.
- González-Espada, Wilson J. (2009). Authoring newspaper science articles: A rewarding experience! *The Clearing House*, 82(3), 131-134.
- González-Espada, W. J. (2008). Physical science lab quizzes: Results from test item analysis. *Journal of Science Education/REC*, 9(2), 81-85.
- González-Espada, W. J. and Stone, M. (2007). Guiding experiences in physics instruction for undergraduates. *The Journal of Physics Teacher Education Online*, 4(3), 3-6.
- González-Espada, W. J. and Bullock, D. W. (2007). Innovative applications of classroom response systems: Investigating students’ item response times in relation to final course grade, gender, general point average, and high school ACT scores. *Electronic Journal for the Integration of Technology in Education*, 6, 97-108.
- González-Espada, W. J. (2007). The role of the scientific community in school science education. *Interciencia*, 32(8), 510-515.
- González-Espada, W. J. (2007). Using simple statistics to assure science fair success. *Science Scope*, 30(9), 54-56.
- Zaras, D. S. and González-Espada, W. J. (2006). Evaluation of the impact of the NWC REU Program compared with other undergraduate research experiences *Journal of Geoscience Education*, 54(5), 541-549.
- González-Espada, W. J. and Napoleoni-Milán, R. L. (2006). The impact of the freshman year experience on science students. In J. J. Mintzes and W. H. Leonard (eds.), *Handbook of college science teaching*. Arlington, VA: National Science Teachers Association, pp. 351-358.
- González-Espada, W. J. (2006). The influence of Puerto Rican physics teachers’ political beliefs in their pedagogical practices. *Journal of Science Education/REC*, 7(2), 109-113.
- González-Espada, W. J., Ochoa, Eduardo R., Ibarra, Melissa J., and Vargas, Perla A. (2006). Perceptions of differential treatment from the viewpoints of attending physicians, residents, and Hispanic parents in Arkansas. *Hispanic Health Care International*, 4(3), 157-167.
- González-Espada, W. J. (2006). My experience as a visiting faculty at the NWC REU Program. *Journal of Earth System Science Education*, 1, JESSE-05-400-09.
- Torres, S. M. and González-Espada, W. J. (2006). Calculating “g” from acoustic Doppler data. *The Physics Teacher*, 44(8), 536-539.

- González-Espada, W. J., Ibarra, Melissa J., Ochoa, Eduardo R., and Vargas, Perla A. (2006). Multicultural medical encounters: The experience at a pediatric clinic. *Journal of the Arkansas Medical Society*, 102(8), 227-229.
- González-Espada, W. J. (2005). Inmigración y multiculturalismo educativo: El caso de los estudiantes dominicanos en las escuelas puertorriqueñas. *Revista Iberoamericana de Educación*, 36(12), 1-9.
- González-Espada, W. J., and Trantham, K. (2005). How is energy like money? Using analogies in physics teaching. *School Science Review*, 86(317), 85-90.
- González-Espada, W. J. (2005). Succeeding in Introduction to Physical Science: Is mathematics background important? *Journal of the Arkansas Academy of Science*, 58, 60-64.
- González-Espada, W. J. (2005). Las limitaciones del metodo científico. *Revista Spin Cero: Cuaderno de Ciencias*, 9, 87-91.
- González-Espada, W. J. (2004). Reinforcing physical science concepts with original comic strips. In M. Druger, E. D. Siebert, and L. W. Crow (Eds.), *Teaching Tips: Innovations in Undergraduate Science Instruction*. Arlington, VA: National Science Teachers Association Press.
- González-Espada, W. J. (2004). Multicultural education: Helping students succeed in science. *Electronic Journal of Literacy through Science*, 3(12).
- Hemmati, M. and González-Espada, W. J. (2003). Thermal behavior inside an igloo: An improved model. *Physics Education*, 38(3), 270-271. A multimedia file with additional details and derivations is at: <http://www.iop.org/EJ/mmedia/0031-9120/38/3/605/>.
- González-Espada, W. J. (2003). Learning and having fun with electric letter soups! *Science Education Review*, 2(3), 79-83.
- González-Espada, W. J. (2003). A last chance for getting it right: Addressing misconceptions in physical science through independent research. *The Physics Teacher*, 41(1), 36-38.
- González-Espada, W. J. (2003). Integrating physical science and the graphic arts with scientifically accurate comic strips: Rationale, description, and implementation. *Revista Electronica de Enseñanza de las Ciencias*, 2(1).
- González-Espada, W. J. (2003). Physics education research in the United States: A summary of its rationale and main findings. *Journal of Science Education/REC*, 4(1), 5-7.
- González-Espada, W. J., Bryan, L.A., and Kang, N. (2001). The intriguing physics inside an igloo. *Physics Education*, 36(4), 290-292.
- Tippins, D. J., González-Espada, W. J., and Haugh, T. A. (1999). A chocolate curriculum. *The Science Teacher*, 66(7), 30-33.

#### **V(b). SCHOLARLY ACTIVITIES: NON-REFEREED PUBLICATIONS**

- Casillas-Martinez, L. & Gonzalez-Espada, W. J. (2019). Cybernetic girls can be pinky: Strategies to recruit and retain Latinas into STEM in the context of faculty-to-student empowerment. In K. M. Mack, K. Winter & M. Soto (Eds.), *Culturally responsive strategies for reforming STEM higher education: Turning the TIDES on inequity* (pp. 33-51). Bingley, UK: Emerald Publishing Limited.
- Méndez, A. and González-Espada, W. J. (2016). *Searching for habitable worlds: An introduction*. San Rafael, CA: Morgan & Claypool Publishers.
- González-Espada, W. J. (2014). Entrevista a Joseph Taylor: Púlsares y radiotelescopios. *Astronomía*, 19(179), 38-43.

- González-Espada, W. J. (2011). Sandy Cheeks, scientist. *SpongeBob SquarePants and philosophy* (Popular Culture and Philosophy Series #60). Chicago, Ill: Open Court Publishing, pp. 181-194.
- González-Espada, W. J., Colón-Ramon, D., and Feliú-Mójer, M. (2011). *Ciencia Boricua: Ensayos y anécdotas del científico puertorrico*. San Juan, PR: Editorial Callejón.
- González-Espada, W. J. (2011). El radiotelescopio de Arecibo desde dentro. *Astronomía*, 26 (140), 26-32.
- González-Espada, W. J. (2010). Peer mentoring at a space science undergraduate research program: Students' voices and lessons learned. *CUR Quarterly on the Web*, 31(2), 1-8.
- González-Espada, W. J. (2010). The case of the "not-so-short" circuit. *The Physics Teacher*, 48(8), 554-555.
- González-Espada, W. J. and Melvin, A. D. (2007). Physics takes Oklahoma by storm. *Interactions across Physics and Education*, 37(3), 46-47.
- Roberts, E. and González-Espada, W. J. (2006). Snap! Catch students' attention with mousetrap vehicles. *Tech Directions*, 65(1), 15-18.
- González-Espada, W. J. and Oliver, J. S. (2002). Context and cultural relevance in Puerto Rican high school physics: A quantitative analysis of influencing factors *Proceedings of the 2002 Annual International Conference of the Association for the Education of Teachers in Science, USA*, 7, 682-702. ERIC Document Reproduction Service No. ED (465 602).

#### **V(c). SCHOLARLY ACTIVITIES: SUBMITTED PUBLICATIONS**

- González-Espada, W. J., Dwyer, J. H., de La Harpe, K, and Meier, David (2019). Factors associated with students graduating with STEM majors at a military academy: Improving success by identifying early obstacles. *Journal of College Science Teaching (in preparation)*.
- Brewer, H. E. González-Espada, W. J., and Boram, R. (2019). Push factors associated with students leaving quantitative STEM majors: Perspectives from college students and school science teachers. *Journal of the Kentucky Academy of Science (in preparation)*.
- Pérez-Aguirre, R., González-Espada, W. J., & Sarasola-Bonetti, M. (2019) Implementación del Aprendizaje Basado en Proyectos (ABP) en tres centros de educación media uruguayos. *Estudios Pedagógicos (submitted)*. <http://revistas.uach.cl/index.php/estped/index>
- González-Espada, W. J. (2019). Betting on better buoyancy? Be careful what you wish for. *The Physics Teacher (accepted)*.
- González-Espada, W. J. (2019). Rosa Navarro-Haydon and the struggle for locally-relevant science education in Puerto Rico 1926-1966. *Revista Educación (accepted)*. <https://revistas.ucr.ac.cr/index.php/educacion/information/authors>
- Feliú-Mójer, M. I., Guerrero-Medina, G. & González-Espada, W. J. (2019). Community case study: Culturally relevant communication to increase science awareness and engagement in underserved communities. *Frontiers in Communications (in preparation)*.
- Knell, J. L., Fugate, J. Z., and González-Espada, W. J. (2018). Using daily meteorological data to identify possible mesoscale signatures of climate change in Kentucky. *The Appalachian Journal (submitted)*.

González-Espada, W. J., Lacués, E.; Otheguy, G., Pagano, M., Pollio, A., Pérez, R., Sarasola, M. (2018). Identifying academically at-risk incoming freshmen at a private university in Uruguay: Psychometric evaluation of a mathematics diagnostic test. *UNIÓN: Revista Iberoamericana de Educación Matemática (accepted with revisions)*.

**V(d). RECENT SCHOLARLY ACTIVITIES: CONTRIBUTIONS TO PROFESSIONAL MEETINGS** (\* Undergraduate Research Fellow or Mentored Faculty Research)

- Brewer, H. E.\*, Boram, R., & González-Espada, W. J. (2019). *Factors associated with students leaving quantitative STEM majors. A case study*. Poster presentation at the Annual Celebration of Student Scholarship, Morehead State University, 24 April, Morehead, KY.
- Brewer, H. E.\*, Gonzalez-Espada, W. J., & Robert D. Boram, R. D. (2019). *Why do students leave quantitative STEM majors? Perspectives from Eastern Kentucky*. Oral presentation at the Annual National Conference on Undergraduate Research, Kennesaw State University, 11 April, Kennesaw, GA.
- Brewer, H. E.\*, Boram, R., & Gonzalez-Espada, W. J. (2019). *Farewell: Switching from math to non-STEM majors*. Oral presentation at the Annual Meeting, Kentucky Section of the Mathematical Association of America. Centre College, 30 March, Danville, KY.
- Brewer, H. E.\*, González-Espada, W. J., & Boram, R. (2019). *Leaving physical science behind: An exploration of why undergraduates switch to non-science majors*. Oral presentation at the Spring Meeting of the Kentucky Association of Physics Teachers, Bellarmine University, March 9, Louisville, KY.
- González-Espada, W. J. (2019). *I saw it on the Internet: An improved buoyancy activity?* Oral presentation at the Spring Meeting of the Kentucky Association of Physics Teachers, Bellarmine University, March 9, Louisville, KY.
- Brewer, H. E.\*, Gonzalez-Espada, W. J., & Boram, R. (2019). *Factors associated with students leaving quantitative STEM majors. A case study*. Poster presented at the 18th Annual Posters-at-the-Capitol, Kentucky Posters-at-the-Capitol State Organizing Committee, February 21, Frankfort, KY.
- Brewer, H. E.\*, Gonzalez-Espada, W. J., & Boram, R. (2018). *Science regret: Why college students switch out of science majors?* Workshops presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 9, Lexington, KY
- Gonzalez-Espada, W. J. (2018). *Archimedes' Principle: Soapy or Not?* Workshops presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 9, Lexington, KY.
- Brewer, H. E.\*, Gonzalez-Espada, W. J., & Boram, R. (2018). *Why do students leave quantitative STEM majors?* Oral presentation at the annual meeting of Kentucky Academy of Science, November 3, Western Kentucky University, Bowling Green, KY.
- Gonzalez-Espada, W. J. (2018). *Publishable STEM education manuscripts: A practical guide for research and dissemination at regional universities*. Workshop presented at the 17th Best Practice Conference on Teaching and Learning, Puerto Rico Louis Stokes Alliance for Minority Participation, 26 October, Catholic University of Puerto Rico, Ponce PR.

- Gonzalez-Espada, W. J. (2018). *Publishing in STEM education: Examples and recommendations*. Workshop presented at the 17th Best Practice Conference on Teaching and Learning, Puerto Rico Louis Stokes Alliance for Minority Participation, 27 October, Catholic University of Puerto Rico, Ponce PR.
- Bieryla, A., Davis, D., Donson, B., Gonzalez-Espada, W. J., Graeme-Kleintjies, H., Hart, R., Parker, L., & Stockhausen, A. (2018). *Effective and simple handheld multimodal tool to monitor infrared emissions*. Poster presented at the International Astronomical Union General Assembly XXX (Division C - Astronomy Education, Outreach and Heritage), August 27, Austria Center Vienna, Vienna, Austria.
- Gonzalez-Espada, W. J., Perez, R., & Sarasola, M. (2018). *Middle school students' perceptions of PBL in Uruguay: Final analysis*. Joint Spring 2018 meeting of the American Association of Physics Teachers, Appalachian and Kentucky Sections, March 10, Marshall University, Huntington, WV.
- González-Espada, W. J., Parker, L., Stockhausen, A., Díaz-Merced, W., Bieryla, A., Hart, R., & Davis, D. (2017). *Hearing eclipses: Making astronomy events accessible to visually-impaired students*. Oral presentation at the annual meeting of Kentucky Academy of Science, November 4, Murray State University, Murray, KY.
- González-Espada, W. J., Li, S.\*, & Peng, J.\* (2017). *Challenges and coping strategies of Chinese exchange students attending a university in Eastern Kentucky: A case study*. Oral presentation at the annual meeting of Kentucky Academy of Science, November 4, Murray State University, Murray, KY.
- González, W. J., Parker, L., & Stockhausen, A. (2017). *Using sound to explore scientific phenomena*. Workshops presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 10 and 11, Lexington, KY (2 sessions).
- González-Espada, W. J., Geille, P., Perciante, D., Sarasola, M., & Perez, R. (2017). *Catholic University of Uruguay: Innovative Instructional Strategies in Mechanics*. Poster presentation at the 2017 American Association of Physics Teachers Summer Meeting, July 24, Cincinnati, OH.
- Peng, J.\* & Gonzalez-Espada, W. J. (2017). *Psychological coping strategies of Chinese exchange students attending a university in Eastern Kentucky: A case study*. Poster presentation at the 12th annual Celebration of Student Scholarship, April 26, Morehead State University, Morehead, KY.
- Li, S.\* & Gonzalez-Espada, W. J. (2017). *Language coping strategies of Chinese exchange students attending a university in Eastern Kentucky: A case study*. Poster presentation at the 12th annual Celebration of Student Scholarship, April 26, Morehead State University, Morehead, KY.
- Gonzalez-Espada, W. J., Lacués, E., Otheguy, G., Pagano, M., Pérez, R., Pollio, A., & Sarasola, M. (2017). *El Programa Fulbright Uruguay y su impacto en la investigación: Conocimiento sociocientífico, retención académica y el misterio de los maestros de física afrodescendientes*. Oral presentation at the XIV Puerto Rican Congress on Educational Research, College of Education, March 8, University of Puerto Rico Río Piedras Campus, San Juan, PR.
- González-Espada, W. J. (2016). *Minty engineering with Mint-Mobiles*. Workshops presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 11 and 12, Lexington, KY (2 sessions).



- González-Espada, W. J., Pérez, R., & Sarasola, M. (2016). *Perception of Science-Technology-Society (STS) topics among Uruguayan college students: Implications for high school curricular reform*. Oral presentation at the annual meeting of Kentucky Academy of Science, November 5, University of Louisville, Louisville, KY.
- González-Espada, W. J., Lacués, E., Otheguy, G., Pagano, M., Pérez, R., Pollio, A., & Sarasola, M. (2016). *Validation of a mathematics diagnostic test to identify academically at-risk freshmen enrolled in a Uruguayan private university*. Oral presentation at the annual meeting of Kentucky Academy of Science, November 5, University of Louisville, Louisville, KY.
- González-Espada, W. J., Pérez, R., & Sarasola, M. (2016). *Implementation of a Project-Based Learning approach in Uruguay's middle schools: Preliminary findings*. Oral presentation at the annual meeting of Kentucky Academy of Science, November 5, University of Louisville, Louisville, KY.
- González-Espada, W. J., Pérez, R. & Sarasola, M. (2016). *College students' perceptions of STS concepts: Implications for scientific literacy*. Oral presentation at the III Congreso Latinoamericano de Investigación en la Didáctica de las Ciencias, July 6-8, Laboratorio Tecnológico del Uruguay, Montevideo, Uruguay.
- Fugate, J. Z.\* & González-Espada, W. J. (2016). *Mesoscale meteorological data identifies possible effects of climate change in Eastern Kentucky*. Oral presentation at the 11th annual Celebration of Student Scholarship, April 27, Morehead State University, Morehead, KY.
- Knell, J. L.\* & González-Espada, W. J. (2016). *Mesoscale meteorological data identifies possible effects of climate change in Western Kentucky*. Oral presentation at the 11th annual Celebration of Student Scholarship, April 27, Morehead State University, Morehead, KY.
- Knell, J. L.\* & González-Espada, W. J. (2016). *Undergraduate Research Fellowships: A strategic investment to reduce women underrepresentation in the mathematical sciences*. Poster presented at The Wilma Grote Symposium for the Advancement of Women, April 18, Morehead State University, KY.
- Knell, J. L.\* & González-Espada, W. (2016). *Evidence of climate change in Western Kentucky?* Oral presentation at the Annual Meeting of the Mathematical Association of America Kentucky Section (KYMAA), Northern Kentucky University, April 1, Highland Heights, KY.
- Fugate, J. Z.\* & González-Espada, W. (2016). *Evidence of climate change in Eastern Kentucky?* Oral presentation at the Annual Meeting of the Mathematical Association of America Kentucky Section (KYMAA), Northern Kentucky University, April 1, Highland Heights, KY.
- Knell, J. L.\* & González-Espada, W. (2016). *Evidence of climate change in Western Kentucky?* Oral presentation at the Spring Meeting of the Kentucky Association of Physics Teachers, Centre College, March 12, Danville, KY.
- Fugate, J. Z.\* & González-Espada, W. (2016). *Evidence of climate change in Eastern Kentucky?* Oral presentation at the Spring Meeting of the Kentucky Association of Physics Teachers, Centre College, March 12, Danville, KY.
- \*Knell, J. L., \*Fugate, J. Z., & González-Espada, W. J. (2016). *Using mesoscale meteorological data to identify possible local effects of global climate change*. Poster presented at the 15th Annual Posters-at-the-Capitol, February 25, Frankfort, KY.

- González-Espada, W. J. (2016). *Cybernetic girls can be pinky: An empowering program to allure biology majors into computational sciences*. Puerto Rico Project Kaleidoscope Regional Network Meeting, University of Puerto Rico, January 29, Humacao, PR.
- \*Knell, J. Z., \*Fugate, J. Z., & González-Espada, W. J. (2015). *Using mesoscale meteorological data to identify possible local effects of global climate change*. Paper presented at the 101th Annual Meeting of the Kentucky Academy of Science, Northern Kentucky University, November 14, Highland Heights, KY.
- \*Fugate, J. Z., \*Knell, J. L., & González-Espada, W. J. (2015). *Learning about weather and climate with local Kentucky data*. Workshop presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 7, Lexington, KY.
- \*Fugate, J., & González-Espada, W. (2015). *Item Response Theory: Implications for the assessment of pre-service teachers' scientific knowledge*. Oral presentation at the 10th annual Celebration of Student Scholarship, April 22, Morehead State University, Morehead, KY.
- \*Knell, J. & González-Espada, W. (2015). *Using Item Response Theory to analyze a physical science content assessment*. Oral presentation at the 10th annual Celebration of Student Scholarship, April 22, Morehead State University, Morehead, KY.
- \*Wilhoite, A. & González-Espada, W. (2015). *Inquiry physical science: Curricular comparisons and IRT analysis*. Oral presentation at the 10th annual Celebration of Student Scholarship, April 22, Morehead State University, Morehead, KY.
- \*Fugate, J., & González-Espada, W. (2015). *Item Response Theory: Implications for the assessment of pre-service teachers' scientific knowledge*. Oral presentation at the annual meeting of the Kentucky Section of the Mathematical Association of America, March 28, Morehead State University, Morehead, KY.
- \*Knell, J. & González-Espada, W. (2015). *Using Item Response Theory to analyze a physical science content assessment*. Oral presentation at the annual meeting of the Kentucky Section of the Mathematical Association of America, March 28, Morehead State University, Morehead, KY.
- \*Wilhoite, A. & González-Espada, W. (2015). *Inquiry physical science: Curricular comparisons and IRT analysis*. Oral presentation at the annual meeting of the Kentucky Section of the Mathematical Association of America, March 28, Morehead State University, Morehead, KY.
- González-Espada, W. J. (2015). *How homework submission guidelines affect test scores in an online "Physical Science and Society" course*. Oral presentation at the annual meeting of the Kentucky Association of Physics Teachers (Next Generation Physics Teaching Regional Conference), March 14, Eastern Kentucky University, Richmond, KY.
- \*Knell, J. L., \*Fugate, J. Z., & González-Espada, W. J. (2015). *Applying IRT guidelines to improve diagnostic measurement of physical science content knowledge among pre-service K-5 majors: a longitudinal approach*. Oral presentation at the annual meeting of the Kentucky Association of Physics Teachers (Next Generation Physics Teaching Regional Conference), March 14, Eastern Kentucky University, Richmond, KY.
- \*Wilhoite, A. P. & González-Espada, W. J. (2015). *Inquiry physical science: Curricular comparisons and IRT analysis*. Oral presentation at the annual meeting of the Kentucky Association of Physics Teachers (Next Generation Physics Teaching Regional Conference), March 14, Eastern Kentucky University, Richmond, KY.

- González-Espada, W. J., Casillas, L., Vega, E., Fernandez, D., Temblay, R., Ríos, I., & Rivera, J. (2014). *Implementing a program to attract and retain female Hispanic students into computer science careers*. Paper presented at the 100<sup>th</sup> Annual Meeting of the Kentucky Academy of Science, Lexington Conference Center, November 15, Lexington, KY.
- \*Wilhoite, A. P., \*Knell, J. L., \*Fugate, J. Z., & González-Espada, W. J. (2014). *Using Item Response Theory to improve diagnostic assessments of pre-service teachers*. Paper presented at the 100<sup>th</sup> Annual Meeting of the Kentucky Academy of Science, Lexington Conference Center, November 15, Lexington, KY.
- González-Espada, W. J. (2014). *Scale-based visualizations of the atom*. Workshops presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 7 and 8, Lexington, KY (2 sessions).
- \*Fugate, J. Z., \*Wilhoite, A. P., \*Knell, J. L. & González-Espada, W. J. (2014). *Do your tests pass the test?* Workshop presented at the Annual Meeting of the Kentucky Science Teachers Association, Lexington Conference Center, November 7, Lexington, KY.
- \*Knell, Janie L. & González-Espada, W. J. (2014). *Analysis of factors that influence the use of dietary supplements among college students in Eastern Kentucky*. Poster presented at the Celebration of Student Scholarship, April 23, Morehead, KY.
- \*Wilhoite, Andrea P. & González-Espada, W. J. (2014). *Use of CAM therapies among college students in Eastern Kentucky: Is there a relation with attitudes toward science?* Poster presented at the Celebration of Student Scholarship, April 23, Morehead, KY.
- \*Wilhoite, Andrea P. & González-Espada, W. J. (2014). *Use of CAM therapies among college students in Eastern Kentucky: Is there a relation with attitudes toward science?* Poster presented at the Southern Regional Honors Council Conference, March 27-29, Savannah, GA. Georgia.
- \*Knell, Janie L. & González-Espada, W. J. (2014). *Analysis of factors that influence the use of dietary supplements among college students in Eastern Kentucky*. Oral presentation at the annual meeting of the Kentucky Section of the Mathematical Association of America, March 29, Murray, KY.
- Gonzalez-Espada, W. J. (2014). *Five years of informal physical science education: A call to action*. Paper presented at the Spring meeting of the Kentucky Association of Physics Teachers, Bellarmine University, March 15, Louisville, KY.
- \*Wilhoite, Andrea P. & González-Espada, W. J. (2014). *Use of CAM therapies among college students in Eastern Kentucky: Is there a relation with attitudes toward science?* Poster presented at the 13th Annual Posters-at-the-Capitol, February 27, Frankfort, KY.
- \*Knell, J. L., \*Wilhoite, A. P. & Gonzalez-Espada, W. J. (2013). *Use of CAM therapies among college students in Eastern Kentucky: A pilot study*. Paper presented at the 99th Annual Meeting of the Kentucky Academy of Science, November 9, Morehead, KY.
- Francis, S. M. & Gonzalez-Espada, W. J. (2013). *Teaching NGSS ETS1-A using a hands-on approach: Designing and building a mousetrap glider*. Paper presented at the 99th Annual Meeting of the Kentucky Academy of Science, November 9, Morehead, KY.
- Gonzalez-Espada, W. J. & Carrasquillo, R. E. (2013). *Jumping the gun: Teaching NGSS ETS1-A and ETS2-B by analyzing historical lessons and contemporary technologies*. Paper presented at the 99th Annual Meeting of the Kentucky Academy of Science, November 9, Morehead, KY.

- González-Espada, W. J. (2013). *The KY Mesonet: A data-rich resource to teach weather-related NGSS*. Workshop presented at the Annual Conference of the Kentucky Science Teachers Association, November 2, Lexington, KY.
- \*Wilhoite, A. P., \*Knell, J. L., & González-Espada, W. J. (2013). *Dietary supplements: Activities to enhance critical thinking*. Workshop presented at the Annual Conference of the Kentucky Science Teachers Association, November 1, Lexington, KY.
- González-Espada, W. J. (2013). *Teaching science creatively with internet memes*. Paper presented at the Annual Kentucky Innovations Conference, University of Kentucky, May 17, Lexington, KY.
- Guerrero-Medina, G., Díaz-Muñoz, G., Díaz-Muñoz, S., Feliú-Mójer, M., Flores-Otero, J., Fortis-Santiago, Y., González-Espada, W. & López-Casillas, M. (2013). *An online membership organization to promote and enhance science education in Puerto Rico*. Paper presented at the 86th NARST Annual International Conference, April 6-9, Río Grande, PR.
- Feliú-Mójer, M., Guerrero-Medina, G., Colón-Ramos, D., López-Casillas, M., Flores-Otero, J., González-Espada, W., Fortis-Santiago, Y., Díaz-Muñoz, G., & Díaz-Muñoz, S. (2013). *CienciaPR: Science education through media and informal settings*. Paper presented at the 86th NARST Annual International Conference, April 6-9, Río Grande, PR.
- Llerandi-Román, P., Colón-Ramos, D., Feliú-Mójer, M., & González-Espada, W. (2013). *Ciencia Boricua: A culturally relevant science book*. Paper presented at the 86th NARST Annual International Conference, April 6-9, Río Grande, PR.
- Fortis-Santiago, Y., Feliú-Mójer, M., Colón-Ramos, D., & González-Espada, W. (2013). *Impact of "Ciencia Boricua" on science teachers' professional development*. Paper presented at the 86th NARST Annual International Conference, April 6-9, Río Grande, PR.
- González-Espada, W., Fortis-Santiago, Y., Guerrero-Medina, G., Ortiz-Vega, N., Colón-Ramos, D., & Feliú-Mójer, M. (2013). *Impact of ¡Ciencia Boricua! on elementary and middle school students's perception of science*. Paper presented at the 86th NARST Annual International Conference, April 6-9, Río Grande, PR.
- González-Espada, W., Fortis-Santiago, Y., Guerrero-Medina, G., Ortiz-Vega, N., Colón-Ramos, D., & Feliú-Mójer, M. (2013). *Impact of ¡Ciencia Boricua! on elementary and middle school students's perception of science*. Paper presented at the XI Researcher's Conference, April 5, Turabo University, Gurabo, PR.
- González-Espada, W. (2013). *Recursos para la contextualización de las ciencias en Puerto Rico*. Oral presentation at the 1st Conversatorio CienciaPR sobre educación STEM en Puerto Rico: Participantes, barreras y oportunidades, April 4, Río Grande, PR.
- González-Espada, W. J. (2013). *Teaching about atoms, nuclei, and isotopes using Bozagga balls*. Paper presented at the Spring 2013 meeting of the Kentucky Association of Physics Teachers, Elizabethtown Community and Technical College, March 16, Elizabethtown, KY.
- Feliú-Mójer, M., González-Espada, W., Fortis-Santiago, Y., Guerrero-Medina, G., & Colón-Ramos, D. (2013). *Ciencia Puerto Rico: Leveraging the scientific community to advance science education and public understanding of science*. Poster presented at the Annual Meeting of the American Association for the Advancement of Science (AAAS), February 14-18, Boston, MA.

## V(e). SCHOLARLY ACTIVITIES: RECENT INVITED TALKS

- *How do you hear an eclipse? Making astronomy events accessible to visually-impaired students.* Colloquium, Department of Mathematics and Physics, Morehead State University, September 19, 2017 (14 participants).
- *STEM education research in Montevideo: A Fulbright experience.* Talk for the “DiversiTeas” lecture series, Center for Teaching and Learning, Yale University, New Haven CT, March 24, 2017 (12 participants).
- *Applying the engineering process to design Mint-Mobiles.* Talk/workshop for the Rowan County Gifted and Talented Program, Morehead, September 9, 2016 (20 students).
- *The Ciencia Puerto Rico model of science communication.* Lecture for scientists. Instituto de Investigaciones Biológicas Clemente Estable, Ministerio de Educación y Cultura, Montevideo, June 7 (~15 participants).
- *Innovative approaches on science teaching.* Workshop for middle and high school teachers, and pre-service educators. Museum of Natural History Dr. Carlos Torres de la Llosa, Montevideo, June 2 (~20 participants).
- *Learning science with scientific memes.* Workshop for high school students. Liceo Progreso, Progreso, Canelones, June 1 (~30 participants).
- *Learning science with scientific memes.* Workshop for middle school students. Escuela Técnica Cerro Pelado, Maldonado, Maldonado, May 27 (~30 participants).
- *The Ciencia Puerto Rico model of science communication.* Lecture for the general public, scientist and journalists. Museum of Natural History Dr. Carlos Torres de la Llosa, Montevideo, May 24 (~10 participants).
- *Innovative approaches on science teaching.* Workshop for elementary and middle school teachers. Catholic University of Uruguay, Main Campus, May 4, 7, 11 and 14, 2016 (~100 participants).
- *Innovative approaches on science teaching.* Workshop for middle and high school teachers, and pre-service secondary educators. Catholic University of Uruguay, Salto Campus, April 15, 2016 (~50 participants).
- *Innovative approaches on science teaching.* Workshop for middle and high school teachers, and pre-service secondary educators. Catholic University of Uruguay, Main Campus (Bauzá Hall), April 11, 2016 (~80 participants).
- *Applying science processes to the concept of form/function in two different habitats.* 3rd Latin American Science Camp, Minas, Uruguay. Sponsored by the Department of Scientific Culture, Education Directorate, Ministry of Education and Culture, March 5, 2016 (28 high school students).
- *Innovative approaches on science teaching.* Workshop for middle and high school teachers, and pre-service secondary educators. Catholic University of Uruguay, Punta del Este Campus, February 19, 2016 (~20 participants).
- *Innovative approaches on science teaching.* Workshop for elementary teachers, and pre-service elementary educators. Catholic University of Uruguay, Punta del Este Campus, February 19, 2016 (~20 participants).
- *Higher Education in Puerto Rico: An Overview.* Talk for Mr. Clint Hendrix’s section, Governor’s Scholars Program, June 25, 2013 (25 students).

## V(f). SCHOLARLY ACTIVITIES: CONSULTING

2017+

- Science education/Science communications consultant, Ciencia Puerto Rico/Yale Ciencia Strategic Planning, March 24-26. Yale University, New Haven, CT.

2012+

- Science education consultant, EcoExploratorio de Puerto Rico (Science museum).

2008+

- Item fairness reviewer, School Programs, ACT Inc., Iowa City, IA.

## V(g). SCHOLARLY ACTIVITIES: RECENT NEWSPAPER ARTICLES

*Note: Occasionally, some of these science news articles have also been published in other media outlets, such as Periodico Claridad, Universia and E-ciencia. Below I list only the three main media outlets that publish my outreach and dissemination work.*

2019. *El Nuevo Dia*, San Juan, PR. (4)

- September 8, Espían a las abejas con tecnología [*Spying bees with technology*].
- August 4, Investigan los fuegos prehistóricos [*Scientists research prehistoric forest fires*].
- July 7, Profesoras universitarias rediseñan sus cursos post-María [*University professors redesign their courses after Hurricane María*].
- June 2, Científico boricua descubre el fósil de foca monje más antiguo [*Scientist from Puerto Rico discovers oldest monk seal fossil*].

2019. *Diálogo Digital*, San Juan, PR. (3)

- April 10, El almacenamiento de energía: “las vacas gordas” de nuestro futuro energético. [*Storing energy: The “fat cows” of our energy future*].
- April 2, Científico boricua conecta la lluvia del huracán María con el cambio climático. [*Puerto Rican scientist associates rain from Hurricane Maria and climate change*].
- March 25, José Hernández Ayala: Investigador líder en la climatología geográfica [*José Hernández Ayala: A leading researcher in geographic climatology*].

2018. *Diálogo Digital*, San Juan, PR. (3)

- December 2, Estudiante elabora proyecto científico con energía de las olas [*Student develop science project based on wave energy*].
- August 9, Paleontólogo boricua descubre nueva especie de morsa [*Puerto Rican paleontologist discover new walrus species*].
- June 20, Lagartijos: juntos pero no revueltos [*Lizards: together but not mixed*].

2017. *Diálogo Digital*, San Juan, PR. (3)

- July 31, El coquí de ojos rojos ¿nativo o invasor? [*Red-eyed coqui, endemic or invasive?*].
- July 29, Estrenan herramientas educativas por medio de huesos de primates [*New educational tools using primate bones*].

- April 5, Rosa Navarro Haydon: Cimiento de la educación científica escolar en Puerto Rico [*Rosa Navarro Haydon: Foundation of school science education in Puerto Rico*].

2017. *El Nuevo Dia*, San Juan, PR. (1)

- April 6, Científica boricua estudia impacto meteórico [*Boricua scientist studies meteor impact*].

2016. *Diálogo Digital*, San Juan, PR. (9)

- June 2, La mariquita y sus peligrosos "hermanos de crianza" [*The yellow-shouldered blackbird and their dangerous "foster siblings"*].
- May 2, Conociendo la genética del solenodonte [*Studying the solenodon's genetics*].
- April 11, Las nanopartículas y su efecto en las plantas [*Nanoparticles and their effect on plants*].
- April 8, Lo complejo de marcar erizos [*The complex task of tagging sea urchins*].
- February 29, Largartijo común de Puerto Rico en innovador modelo biológico [*Puerto Rican lizard part of an innovative biological model*].
- January 19, Las películas comestibles y su importancia en la industria de alimentos [*Edible films and their importance in the food industry*].
- January 18, Equipo de UPR Humacao cría coquíes en cautiverio [*UPR Humacao team raises coquíes in captivity*].
- January 15, Histórica publicación sobre cayo Santiago [*Historic Cayo Santiago publication*].
- January 14, Genoma del guepardo explica su vulnerabilidad [*Cheetah genome explains its vulnerability*].

2016. *El Nuevo Dia*, San Juan, PR. (7)

- June 13, Hermanos de crianza [*Foster siblings*].
- May 5, Estudian al solenodonte, un fósil viviente [*Studying the solenodon, a living fossil*].
- April 18, Marcan erizos para estudios [*Marking sea urchins for research*].
- April 11, Estudian las nanopartículas [*Nanoparticles studied*].
- February 29, Boricua propone modelo biológico [*Boricua proposes biological model*].
- January 25, Crían coquíes en cautiverio [*Raising coquíes in captivity*].
- January 20, Conoce las películas comestibles [*Knowing about edible films*].

2016. *Nuevo Periodico*, Caguas, PR. (1)

- April 21, Boricuas investigan las nanopartículas y su efecto en plantas [*Puerto Rican scientists research nanoparticles and their effect on plants*].

2015. *Diálogo Digital*, San Juan, PR. (18)

- December 8, Estudiando la anemia con terapias genéticas [*Studying anemia using genetic therapies*].
- November 30, Pieza perdida del rompecabezas genético [*A missing piece in the human genetic puzzle*].
- October 23, Hasta el cemento tiene su ciencia [*Even concrete has its science*].

- October 21, Tras la pista del guabá [*Searching for scorpion spiders*].
- October 12, Proyecto 1000 Genomas en su punto culminante [*1000 Genome Project*].
- September 3, Comunicación a distancia entre lagartijos [*Long distance communication in lizards*].
- July 30, Científicos boricuas develan el uso más antiguo de plantas en el Caribe [*Puerto Rican scientists find the most ancient use of plants in the Caribbean*].
- July 6, Científicos puertorriqueños buscan mejorar el acceso a la educación graduada [*Puerto Rican scientists try to improve access to graduate school*].
- July 3, Miden niveles de plomo en niños y niñas boricuas [*Scientists measure lead levels among Puerto Rican children*].
- May 14, Investigadores descifran el misterio de las boas boricuas [*Scientists solve the mystery of the Puerto Rican boa*].
- May 4, Científico boricua descubre fósil de nueva especie de ballena [*Puerto Rican scientist discovers new fossil whale species*].
- April 1, Monos reconocen a sus parientes paternos nunca antes conocidos [*Monkeys recognize unknown family members*].
- March 30, Lentísima la recuperación de los corales bombardeados [*Very slow the recovery of bombarded corals*].
- February 27, Cuando se pierde el ritmo del sueño [*When you lose your sleep's rhythm*].
- February 25, Hasta los monos se benefician con las vacunas [*Even monkeys benefit from vaccines*].
- January 23, Científicos monitorean la recuperación de los erizos [*Scientists monitor sea urchin population recovery*].
- January 22, Científicos boricuas investigan materiales para purificar el agua [*Puerto Rican scientists research water-purifying materials*].
- January 19, Científicos estudian cómo proteger nuestros corales [*Scientists study how to protect our corals*].

2015. *El Nuevo Día*, San Juan, PR. (20)

- December 5, Clave genética en Rusia [*The Russian genetic clue*].
- October 26, Tras la pista del guabá [*Searching for scorpion spiders*].
- October 25, Hasta el cemento tiene su ciencia [*Even concrete has its science*].
- October 11, En su punto culminante Proyecto 1000 Genomas [*1000 Genome Project*].
- September 5, Con la gaita prendida [*Lizards show translucent displays*].
- July 31, Tras la pista de la dieta precolombina [*Clues in the pre-Columbus diet in America*].
- July 7, Criterios imperfectos [*Imperfect criteria*].
- July 4, El plomo y los niños en PR [*Lead and children in PR*].
- May 15, Víctimas de malas decisiones [*Monkeys in PR: Victims of bad decisions*].
- May 14, El dilema de las boas similares [*The dilemma of look-alike boas*].
- May 4, Hallan cachalote extinto [*Scientist find extinct whale fossil*].
- April 7, Monos con trasunto de... [*Monkeys identify by sight unknown family members*].
- April 3, La desdicha del arrecife de coral [*The misfortune of coral reefs*].
- March 10, Hasta los monos se vacunan [*Even monkeys get vaccinated*].



- March 8, Científicos estudian cómo proteger los corales [*Scientists study how to protect corals*].
- March 6, Boricuas crean material para purificar el agua [*Boricuas create a material to purify water*].
- March 4, ¿Se esconde en Culebra un lagartijo gigante? [*A giant lizard hiding in Culebra?*].
- March 1, Clave los erizos en el ecosistema costero [*Sea urchins are key in the coastal ecosystem*].
- February 27, Cuando los monos pierden el ritmo [*When monkeys lose the rhythm*].
- January 22, Al auxilio de los corales [*To the rescue of corals*].

2015. *Nuevo Periodico*, Caguas, PR. (5)

- December 10, Estudiando la anemia con terapias genéticas [*Student anemia using genetic therapies*].
- August 6, Científicos boricuas develan uso más antiguo de plantas en el Caribe [*Puerto Rican scientists find the most ancient use of plants in the Caribbean*].
- July 2, Miden niveles de plomo en niños boricuas [*Measuring pediatric lead levels*].
- March 5, Hasta los monos se benefician con las vacunas [*Even monkeys benefit from vaccines*].
- January 22, Científicos boricuas investigan materiales para purificar el agua [*Puerto Rican scientists research water-purifying materials*].

2014. *Diálogo Digital*, San Juan, PR. (20)

- August 19, Las notas musicales de los coquíes [*The coquíes', musical notes*].
- August 18, Aumentan las muertes por la “anestesia de caballo” [*Deaths increase due to “horse anesthetic”*].
- August 12, Para largo el calor en Puerto Rico [*Long-term heat wave for Puerto Rico*].
- August 7, Investigadores boricuas publican estudio sobre problemas comunes de la vista [*Puerto Rican researchers publish a study about common vision problems*].
- July 31, UPR Humacao busca aumentar el número de hispanas en carreras STEM [*UPR Humacao aims at increasing the number of female Hispanic students in STEM careers*].
- July 15, Las virtudes de la aféresis terapéutica [*The virtues of therapeutic apheresis*].
- July 14, El oro, más que un simple metal [*Gold, more than a simple metal*].
- July 9, Investigan artrópodos invasores en frutas y vegetales [*Scientists research invasive arthropods in fruits and vegetables*].
- June 18, Sobresalen puertorriqueños en revista norteamericana de física [*Puerto Ricans highlighted in North American physics journal*].
- June 17, Las medicinas discriminan genéticamente [*Medications discriminate genetically*].
- June 9, Descubren nuevas especies de organismos en el Yunque [*New species of organisms discovered in El Yunque*].
- June 3, La mangosta, remedio peor que la enfermedad [*Mongoose, the remedy is worse than the illness*].
- May 13, Un siglo de aguaceros [*A century of rain*].

- April 18, Esfuerzo interagencial para estudiar las palomas turcas [*Inter-agency efforts to study scaly-naped pigeons*].
- April 17, La ciencia, ¿en inglés, español o bilingüe? [*Science: In English, Spanish or both?*].
- April 16, ¿Cómo evitar gastar dinero en suplementos nutricionales que no funcionan? [*How to avoid spending money in useless dietary supplements*].
- March 25, Descubren rastros de droga psicotrópica en reliquia taína [*Psychotropic drug remains found in Taino artifacts*].
- January 28, Científico descubre fósil de antiguo roedor en Puerto Rico [*Scientist discovers extinct rodent fossil from Puerto Rico*].
- January 14, Científicos descubren cuatro especies de líquenes boricuas [*Scientists discover four new lichen species*].
- January 9, Las “otras” quenepas [*The “other” Spanish limes*].

2014. *El Nuevo Día*, San Juan, PR. (18)

- October 5, Verdadero hombre renacentista [*Narciso Rabell: A true Renaissance man*].
- September 10, Invasores difíciles de detectar [*Hard-to-detect invaders*].
- September 7, El lenguaje científico [*Scientific language*].
- September 5, Adulterante fatal [*Deadly adulterant*].
- September 1, Metal cada vez más atractivo [*Gold, a very attractive metal*].
- August 29, Errores refractivos [*Refractive errors*].
- August 26, Remedio peor que la enfermedad [*A remedy that is worse than the illness*].
- August 24, Las “otras” quenepas [*The “other” quenepas*].
- July 18, Aféresis, técnica que salva vidas [*Apheresis: A technique that saves lives*].
- June 18, Medicinas discriminan genéticamente [*Medications discriminate genetically*].
- June 17, Nuevos líquenes hallados en la Isla [*New lichens discovered in the Island*].
- June 11, Destacan contribuciones boricuas a la ciencia [*Boricua contributions to science highlighted*].
- May 20, Un siglo de aguaceros [*A century of rain*].
- April 21, La cojoba y los taínos [*Cojoba and the Tainos*].
- April 17, Una especie que precisa protección [*A species that needs protecting*].
- January 28, Hallan fósil de un antiguo roedor [*Extinct rodent fossil found*].
- January 14, Nuevos detalles de la genética Boricua [*New details on Boricua genetics*].
- January 9, Colonizadores boricuas [*Boricua colonizers*].

2014. *Nuevo Periódico*, Caguas, PR. (5)

- August 7, Problemas de la vista comunes [*Common vision problems*].
- July 17, Conoce sobre la aféresis terapéutica [*Know about therapeutic apheresis*].
- May 22, Científicos de aquí: Yoira Díaz Sanabria [*Our scientists: Yoira Díaz Sanabria*].
- April 10, Dos golpes recientes a la pseudociencia [*Two strikes against pseudoscience*].
- January 23, Ciencia: Las “otras” quenepas [*The “other” Spanish limes*].

2013. *Diálogo Digital*, San Juan, PR. (9)

- December 16, Los fantásticos viajes marinos de la salamanquita boricua [*The fantastic sea voyages of a Boricua gecko*].

- December 13, Evaluando guineos y plátanos resistentes a la sigatoka [*Evaluating sigatoka-resistant bananas and plantains*].
- September 26, Cuando la tecnología se ‘esmanda’ [*When technology moves too quickly*].
- September 18, Nuevos materiales para almacenar dióxido de carbono [*New materials to store carbon dioxide*].
- September 17, Murciélagos viequenses [*Vieques bats*].
- August 26, Investigación de avanzada sobre las drogas y el cerebro [*Innovative research about the effect of drugs on the brain*].
- June 19, El efecto de los hongos en la salud y el hogar [*The effect of mold on health and households*].
- March 11, Los lagartijos boricuas se acostumbran al frío de la Florida [*Boricua Anolis get used to Florida winters*].
- February 22, ¿El fin de los mangles? [*The end of mangroves?*].

2013. *El Nuevo Día*, San Juan, PR. (15)

- December 12, Tras una solución contra la sigatoka [*In search of a solution for sigatoka*].
- November 26, Las señales de los púlsares [*Pulsar signals*].
- November 25, Recuerdos de un Nobel hecho en Arecibo [*Memories of a Nobel Prize made in Arecibo*].
- November 24, El milenar viaje de una especie [*The millennial voyage of a species*].
- October 7, El efecto de las drogas en el cerebro [*The effect of drugs on the brain*].
- September 25, Cuando la tecnología se “esmanda” [*When technology moves too quickly*].
- September 23, Un Nobel hecho en Puerto Rico [*A Nobel Prize made in Puerto Rico*].
- August 20, ¿Cómo combaten las infecciones los corales? [*How corals fight infections?*]
- August 11, ¿Cómo combaten las infecciones los corales? [*How corals fight infections?*]
- August 6, Crean un safari virtual boricua en internet [*Scientists create a virtual safari in the Internet*].
- June 10, El desafío de los hongos en el hogar [*The challenge of mold in homes*].
- June 7, Vitales los murciélagos [*Essential bats*].
- March 5, Los dilemas éticos de la ciencia moderna [*Ethical dilemmas of modern science*].
- February 17, Se apaga el Canal Tierra [*The Dish-Earth Channel signs off*].
- February 11, Las iguanas y sus menus favoritos [*Iguana’s favorite foods*].

2013. *Nuevo Periódico*, Caguas, PR. (6)

- September 19, Cuando la tecnología se ‘esmanda’ [*When technology moves too quickly*].
- September 12, A 20 años de un Premio Nobel hecho en Puerto Rico [*20 years of a Nobel Prize made in Puerto Rico*].
- September 5, Investigación sobre las drogas y el cerebro [*Research on the effect of drugs on the brain*].
- March 21, Dilemas éticos de la ciencia moderna [*Ethical dilemmas of modern science*].
- March 7, Mejores bombillas en 5 años [*Better lightbulbs in 5 years*].
- February 14, Las iguanas y los mangles [*The effect of iguanas on mangroves*].

2012. *Diálogo Digital*, San Juan, PR. (11)

- November 27, Revelan nuevos datos sobre la presión y la deformación volcánica [*New data on pressure and volcanic deformation revealed*].
- August 21, Aguas usadas: Más allá de un ecosistema desagradable [*Sewage water: Beyond a disgusting ecosystem*].
- June 25, Lagartijos sobrecalentados [*Overheated lizards*].
- May 8, Nuevo record de precisión para medir el tiempo [*New precise time-keeping record*].
- April 9, Dientes sucios revelan dieta precolombina [*Dirty teeth revealed pre-Columbian diet*].
- March 23, Estudian la recuperación de los bosques de tabonuco [*Scientists study the recovery of candlewood forests*].
- March 20, Las cotorras piden consejo [*Parrots ask for advice*].
- March 5, Planetas “suelos como gabete” [*Rogue planets*].
- February 22, Importante hallazgo sobre comunicación no-verbal entre primates [*Important discovery about non-verbal primate communication*].
- February 3, La fricción te cuesta dinero [*Friction costs you money*].
- January 17, Recomiendan paneles solares para vertederos municipales [*Solar panels recommended for old landfills*].

2012. *El Nuevo Día*, San Juan, PR. (14)

- December 2, La presión y los volcanes [*Volcanoes and pressure*].
- November 29, Nuestra isla se convertirá en dos [*Our island will split into two*].
- November 12, Nueva mirada a las “invasiones” [*A new look at invasive species*].
- August 16, Nuevo records de precisión [*New precision-related record*].
- August 12, Cuando los lagartijos se sobrecalientan [*When lizards overheat*].
- August 9, ¿Inofensivas las iguanas? [*Are iguanas harmless?*]
- May 30, La evolución del manatí [*The evolution of sea cows*].
- April 5, Sí, la fricción cuesta dinero [*Yes, friction costs money*].
- March 23, Boricuas descubren molusco [*Boricua scientist discover new mollusk species*].
- March 2, “Volando bajito” pero muy seguro [*Flying low but safe*].
- February 17, El idioma de sus rasgos faciales [*The language of facial expressions*].
- January 19, Peligrosa variedad del “Aedes” [*Dangerous variety of Aedes mosquitoes*].
- January 18, Mirada boricua al cosmos [*A Boricua looks at the cosmos*].
- January 5, La hidratación, vital para el ejercicio [*Hydration is vital during exercise*].

2012. *Nuevo Periódico*, Caguas, PR. (11)

- November 8, Nuevos paradigmas en la ecología de invasiones [*New paradigms in invasion ecosystems*].
- September 6, Ecosistemas desagradables [*Nasty ecosystems*].
- August 30, ¿Son los vehículos híbridos apropiados para el trópico? [*Are hybrid vehicles appropriate for tropical countries?*]
- August 2, Las iguanas y la fauna de Puerto Rico [*Iguanas and Puerto Rican fauna*].
- June 5, Lagartijos sobrecalentados [*Overheated lizards*].

- May 10, Nuevo record de precision para medir el tiempo [*New precision record to measure time*].
- March 1, La fricción y tu carro [*Friction and your car*].
- February 9, Marcelo Febo y la neuroquímica del amor materno [*Marcelo Febo and the neurochemistry of motherly love*].
- January 19, El cambio climático y la Reserva Natural de Humacao [*Climate change and the Humacao Natural Reserve*].
- January 12, Peligroso y oculto el Aedes mediovittatus [*Aedes mediovittatus: A hidden danger*].
- January 5, El cerebro y la zona de empatía [*The brain's empathy zone*].

2011. *Diálogo Digital*, San Juan, PR. (18)

- December 21, UPR Arcibo presenta catálogo de planetas habitables [*UPR Arcibo presents catalog of habitable exoplanets*].
- December 21, A usar la zona de empatía [*Using your empathy zone*].
- December 8, Peligroso y oculto el Aedes Mediovittatus [*Aedes mediovittatus: A hidden danger*].
- November 9, El cambio climático y la Reserva Natural de Humacao [*Climate change and the Humacao Natural Reserve*].
- September 22, El asma y los remedios de la abuela [*Asthma and homemade remedies*].
- July 11, Más evidencia contra los brazaletes “milagrosos” [*More evidence against “miracle” bracelets*].
- June 29, Conoce la apoptosis o el “suicidio celular” [*Knowing about cell suicide*].
- June 7, Arquitectura inspirada en la fisiología humana [*Architecture inspired by human physiology*].
- June 3, Científicos Boricuas nos transportan en el pasado [*Boricua scientists' travel to the past*].
- May 8, Espiando a Mercurio [*Spying Mercury*].
- April 19, La pseudociencia y los suplementos para perder peso [*Pseudoscience and weight-loss supplements*].
- April 8, Obstáculos económicos y físicos al biodiesel de algas [*Physical and economic obstacles for algae biodiesel*].
- March 24, La ciencia de la mancha de plátano [*The science of the plaintain's stain*].
- February 21, Atrévete a estudiar física [*Be brave and study physics*].
- February 21, Las gasolineras como posible foco de contaminación [*Gas stations as pollutants*].
- February 4, En peligro las tortugas [*Endangered turtles*].
- January 20, Precaución con las pastillas contra el insomnio [*Caution with sleeping pills*].
- January 18, El cigarillo y sus efectos genéticos inmediatos [*Cigarette's immediate effects*].

## V(h). OTHER SCHOLARLY ACTIVITIES

- Volunteer, American Association for the Advancement of Science's Science and Human Rights Program, <http://oncallscientists.aaas.org>. 2011-present.
- New academic agreement between Morehead State University and University of Puerto Rico Humacao. The agreement develops a program of mutual co-operation involving space systems engineering that provides a bridging academic pathway allowing students from UPRH who have completed the Bachelor's Degree Program in Applied Physics (Electronics) to be able to enroll in Morehead State University's graduate program in Space Systems Engineering.
- Mentor, American Association of Physics Teachers E-mentoring Program for novice physics educators. <http://ementoring.aapt.org/ementor.cfm>. 2010-2014.
- Mentor, LifeWorks® E-mentoring Program for high school and college students, Office of Science Education, National Institutes of Health (NIH), 2008-2013.
- Researcher, writer, and producer, radio segments broadcast from Radio Casa Pueblo 1020 AM, Adjuntas PR ([www.casapueblo.org/radio](http://www.casapueblo.org/radio)), and Radio Prócer 1380 AM, Barranquitas PR, sponsored by Ciencia Puerto Rico ([www.cienciapr.org](http://www.cienciapr.org)). After transmission, the radio segments are made available via podcast (<http://www.cienciapr.org/podcasts.php>) and (<http://casapueblo.org/radio/?cat=4>). More than 140 segments have been created, 69 of these in the year 2010.
- Program co-creator, *Bachelor's degree in Foreign Languages - Spanish Medical Interpretation concentration*. This is an interdisciplinary degree. Students who choose this degree will take a minimum of 12 hours of science, 37 hours of nursing, and 37 hours of Spanish and fulfill their general education requirements. This degree is designed to prepare students to work with clients in the medical field who speak Spanish and little or no English. 2006.
- New course - PHYS 4992, Special Problems in Physics: Guided Experiences in Physics Instruction. Prerequisite: Senior standing and a G.P.A. of 3.00 or above. This elective course is designed for physics majors to start developing their instructional skills in physics. In coordination with the instructor, students will teach some of the physics pre-laboratory lectures and/or the post-lab summaries, in addition of working as laboratory assistants. Students will also become familiar with the basic literature in physics education research.
- New course - PHSC 4883, Multicultural Science and Math Education. Upon demand. Prerequisite: Junior standing or admission to teacher education program. A course designed to familiarize prospective teachers with the theory, methods, and procedures to meet the needs of culturally diverse learners, especially Hispanic students in the science and mathematics classroom.
- New course - PHYS 3042 Intermediate Physics Laboratory. Fall odd years. Prerequisite: PHYS 2114 and 2124. For physical science education majors. This course expands and refines essential content and laboratory skills through the modeling and experimental investigation of topics in both classical and modern physics. Will not satisfy the physics elective requirement for students majoring in physical science. Laboratory three hours.
- Editorial Board Member for the Electronic Journal of Science Education, 2006-present.

- Online Science Fair Project Mentor, 1<sup>st</sup> Annual Virtual Science Fair, Near East South Asia Council of Overseas School (U.S. Department of State’s American International Schools), Athens, Greece, 2006.
- Consultant, Preliminary assessment of translation quality for experimental Spanish version of the National Weather Service (NWS) website, under the direction of Rick Smith, Warning Coordination Meteorologist, NWS, Norman Forecast Office, 1200 Westheimer Drive, Room 101, Norman, OK, July 2005.
- Member, Committee of Advisers for the international journal *Revista de Enseñanza de las Ciencias/Journal of Science Education*, 2003-present.
- Committee Member: Arkansas Academy of Science - Science Education Committee, 2002-2008.
- Editorial Board Member for the journal *Science Education Review*, 2003-present.
- Journal Article Reviewer for the science section of the electronic journal *Contemporary Issues in Technology and Teacher Education (CITE)*, 2001-2003.
- Proposal Reviewer for NARST 2001 Meeting in St. Louis, MO (Strand Two – Learning: Classroom Contexts and Learner Characteristics), 2000.
- Proposal Reviewer for the Eisenhower Program at the University of Georgia, Athens, GA, 2000.

**VI(a). RECENT SERVICE – MSU**

- Science Judge, 17th Annual Kentucky Science & Engineering Fair, Richmond, KY, March 30, 2019.
- “Noche de Ciencia” recruiting event, Society of Hispanic Professional Engineers. Paul Laurence Dunbar High School, Lexington, KY – March 18, 2019.
- Science Judge, 16th Annual Central Kentucky Regional Science & Engineering Fair (CKRSEF), Lexington, KY – March 2, 2019.
- Science Judge, 24th Annual Science and Engineering Fair of Northern Kentucky. (SEFNK), Northern Kentucky University, Highland Heights, KY – February 23, 2019.
- Science Judge, 35th Annual Kentucky American Water/ Fayette County Public Schools Science Fair, Lexington, KY – February 2, 2019.
- Science Judge, 16th Annual Kentucky Science & Engineering Fair, Richmond, KY, March 24, 2018.
- Science Judge, 15th Annual Central Kentucky Regional Science & Engineering Fair (CKRSEF), Lexington, KY – March 3, 2018.
- Science Judge, 23th Annual Science and Engineering Fair of Northern Kentucky. (SEFNK), Northern Kentucky University, Highland Heights, KY – February 24, 2018.
- Science Judge, 34th Annual Kentucky American Water/ Fayette County Public Schools Science Fair, Lexington, KY – February 3, 2018.
- Science Judge, 14th Annual Central Kentucky Regional Science & Engineering Fair (CKRSEF), Lexington, KY – March 4, 2017.
- Science Judge, 22th Annual Science and Engineering Fair of Northern Kentucky. (SEFNK), Northern Kentucky University, Highland Heights, KY – February 25, 2017.
- Science Judge, 33th Annual Kentucky American Water/ Fayette County Public Schools Science Fair, Lexington, KY – February 11, 2017.

- Science Judge, 13th Annual Kentucky Science & Engineering Fair, Richmond, KY, March 28, 2015.
- Science Judge, 12th Annual Central Kentucky Regional Science & Engineering Fair (CKRSEF), Lexington, KY – February 28, 2015.
- Science Judge, 31th Annual Kentucky American Water/ Fayette County Public Schools Science Fair, Lexington, KY – February 7, 2015.
- Science Judge, Kentucky Junior Academy of Science, Lexington, KY, April 19, 2014.
- Science Judge, Twelfth Annual Kentucky Science & Engineering Fair, Richmond, KY, March 29, 2014.
- Science Judge, Eastern Kentucky Science and Technology Fair, Morehead, KY, March 8, 2014.
- Science Judge, 11th Annual Central Kentucky Regional Science & Engineering Fair (CKRSEF), Lexington, KY – March 1, 2014.
- Science Judge, 19th Annual Science and Engineering Fair of Northern Kentucky. (SEFNK), Northern Kentucky University, Highland Heights, KY – February 22, 2014.
- MSU Meet, Maysville Conference Center, October 8, 2013.
- Science Judge, Kentucky Junior Academy of Science, Lexington, KY, April 27, 2013.
- Science Judge, Celebration of Student Scholarship, Morehead State University, April 24, 2013.
- SOAR registration assistance, Department of Math, Computer Science and Physics, April 20, 2013.
- Event coordinator (Experimental Design), Pikeville College Regional Science Olympiad, March 2, 2013.
- Science Judge, 18<sup>th</sup> Annual Science and Engineering Fair of Northern Kentucky. (SEFNK), Northern Kentucky University, Highland Heights, KY – February 23, 2013.
- Science Judge, 29th Annual Kentucky American Water/ Fayette County Public Schools Science Fair, Lexington, KY – February 9, 2013.
- Science Judge, Rowan County High School Science Fair, Morehead, KY, October 24, 2012.
- Science Judge, oral presentations, Science Education session, Annual Meeting of the Kentucky Academy of Sciences, October 20, Eastern Kentucky University, Richmond, KY., 2012.
- Science Judge, Tenth Annual Kentucky Science & Engineering Fair, Richmond, KY, March 31, 2012.
- Event coordinator (Experimental Design), Pikeville College Regional Science Olympiad, March 3, 2012.
- Science Judge, 17<sup>th</sup> Annual Science and Engineering Fair of Northern Kentucky. (SEFNK), Northern Kentucky University, Highland Heights, KY – February 25, 2012.
- Science Judge, 28th Annual Kentucky American Water/ Fayette County Public Schools Science Fair, Lexington, KY – February 11, 2012.
- Science Judge, Kentucky Junior Academy of Science, Lexington, KY, April 2011.
- Science Judge, Ninth Annual Kentucky Science & Engineering Fair, Richmond, KY, April 2, 2011.
- Event coordinator (Experimental Design), Pikeville College Regional Science Olympiad, March 2011.



## VIII. PROFESSIONAL DEVELOPMENT

2019

- *Webinar: Writing NGSS-aligned items for Oklahoma Schools Standardized Assessments/Physics*. Measured Progress (2 hours).
- *Webinar: Writing NGSS-aligned items for Maine Schools Standardized Assessments/Physics*. Measured Progress (2 hours).

2018

- *Research Methods: A UTeach Institute Workshop* (14 hours). University of Texas at Austin, March 6-7.
- *Webinar: Culturally Relevant Pedagogy in the Preparation of Teachers to Work in High-Need School Districts*. (1.5 hours) AAAS-ARISE, Advancing Research & Innovation in STEM Education of Preservice Teachers in High-Need School District, November 28.

2017

- *Perspectives on Science & Mathematics: A UTeach Institute Workshop* (14 hours). University of Texas at Austin, October 25-26.
- *Webinar: Writing NGSS-aligned items for Oklahoma Schools Standardized Assessments/Physics*. Measured Progress (2 hours).

2015

- *Classroom Success Stories: Supporting Students with Disabilities*, MSU Day of Professional Development, Morehead KY.
- *Accessibility Made Easy*, MSU Day of Professional Development, Morehead KY.
- *Webinar: Writing NGSS-aligned items for Massachusetts Schools Standardized Assessments/Physics*. Measured Progress (2 hours).

2013

- *Science: Becoming the Messenger*. NSF Workshop (10 hrs.), University of Louisville, Shelby Campus, Louisville, KY.

2010

- *Summer Teacher Training Program* (45 hrs.), Arecibo Observatory and the University of Puerto Rico's Institute of Functional Nanomaterials, San Juan PR.
- *Improving the College Introductory Astronomy Survey Course through Active Learning*, NASA mini-course, San Juan, PR.

## IX. MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Active

- Kentucky Academy of Science, 2008-present.
- Kentucky Association of Science Teachers, 2008-present.
- Kentucky Association of Physics Teachers, 2008-present.
- National Science Teachers Association, 2004-present.
- American Association of Physics Teachers, 1998-present.

## **X. RECENT RECOGNITIONS AND OUTSTANDING ACHIEVEMENTS**

- Summer 2019 “Improving student success through early assessment of at-risk students, validation of summative assessments and implementation of mastery-based approaches in introductory physics.” Air Force Research Lab Summer Faculty Fellowship Program, United States Air Force Academy (USAFA). \$17,100. Approved.
- Fall 2017 “Morehead State University/University of Puerto Rico Humacao.” American Physical Society Bridge Program: Minority Service Institution Collaboration Travel Grant. \$5,000. Not funded.
- Fall 2016 Major contributor, "Fulbright Junior Faculty Development Program for Tunisia 2017" Institute of International Education, Fulbright Program, U.S. Department of State. \$85,352. Submitted, program cancelled by U.S. Dept. of State.
- Spring 2016 “Faculty Research Award”, Department of Mathematics and Physics, Morehead State University.
- Spring 2016 “Advancing science education in Uruguay through teacher training and research on physics learning” (with Catholic University of Uruguay). Fellowship submitted to the Fulbright Program, Council for International Exchange of Scholars, U.S. Department of State. \$10,400. Approved.
- Summer 2015 PI, “Unbridled STEM: Stories of Scientific Discovery in Eastern Kentucky,” (with Dr. Jonathan Gore, EKU, Co PI). Grant submitted to KY National Science Foundation/ Experimental Program to Stimulate Competitive Research, Education, Outreach and Communication Awards, \$9,965. Not funded.
- Fall 2015 Sub-contract, STEM podcast consulting, STEM professional development workshop lead, “Enhancing biomedical training and diversity through a Hispanic science network” (with Giovanna Guerrero-Medina, PI; Amy S. Ellis, Co PI). Grant submitted to National Institutes of Health/Innovative Programs to Enhance Research Training, ~\$10,000/yr for 5 years. Approved.
- Spring 2015 Co PI, Assessment Coordinator, “Improving Mathematics Achievement through Peer Mentoring and Inverted Classroom Strategies”, National Science Foundation/ Engaged Student Learning: Exploration grant submitted by Dr. Dora Ahmadi and Ms. Sue Beck, Department of Mathematics, Computer Science and Physics, Morehead State University, Morehead, KY. \$249,894. Not funded.
- Summer 2013 Sub-contract, “Puerto Rico Research Group Summer Research Experience”, National Science Foundation and Universidad Metropolitana’s Student Research Development Center, \$9,670. Approved.
- Summer 2012 Sub-contract, “Puerto Rico Research Group Summer Research Experience”, National Science Foundation and Universidad Metropolitana’s Student Research Development Center, \$12,896. Approved.
- Fall 2011 PI, “Ciencia Boricua: Contextualizando la Ciencia Mediante la Lectura, Investigación y la Tecnología”, Fundación Banco Popular de Puerto Rico, San Juan, PR, \$30,000. Approved.
- Fall 2010 PI, “Podcasts Interactivos para Ciencia Escolar (PICE; Interactive Podcasts for School Science)”, Google RISE (Roots in Science and Engineering) Awards, \$8,000. Not funded.