ARTURO FERNÁNDEZ-TÉLLEZ

CV (MARCH 2019)

PERSONAL DATA

Arturo Fernández Téllez
Position: Full time Professor, Ph.D. in Physics
Fac. Ciencias Físico Matemáticas
Benemérita Universidad Autónoma de Puebla
Av. Sn. Claudio y Rio Verde, Col. Sn. Manuel
Puebla, Puebla, México 72520
Tel: +52 222 2295500, ext. 2145, (office)
+52 222 1844381 (mobile phone)

PROFESSIONAL PREPARATION

Universidad Autónoma de Puebla, Physics, B. A, 1980-1985.
Universidad Autónoma de Puebla, Physics, Master, 1985-1987.
Centro de Investigaciones y Estudios Avanzados, Ph.D., 1987-1991.
Postdoctoral Research Associate , Fermilab 1992-93

APPOINTMENTS

- Full Time Professor 1993- present
- Visiting professor: ICTP (1987), CBPF, Brazil (1997), Fermilab (1993-1997, multiple visits), Fermila&CERN (2000-2001 Sabbatical Year), CERN (2003-2019, multiple visits).
- Scientific Associated Position at CERN (Senior Scientist), May 2007-August 2008.
- CERN Team Leader (ACORDE- ALICE leader group, August 2008- present).
- Member of the Researchers Mexican Council, Level III.
- Member of Mexican Academy of Science, since 2001.

SCIENTIFIC PUBLICATIONS

320 published scientific publications (Appeared in scientific journals)

GRADUATE ADVISEES

- Bachelors Degree in Physics, 29 students
- Masters Degree in Physics, 18 students
- Ph.D. in Physics, 6 students

SYNERGISTIC ACTIVITIES

- Mexican Academy of Sciences, Regular Member, since 1999.
- Sistema Nacional de Investigadores (Member since 1990, Present Level: Level III).
- Grants found: Mexican Nacional Science and Technology Council (CONACyT), Council of the European Union, Brussels, International Center for Theoretical Physics (ICTP), Trieste, Italy.
- Referee of Scientific Proposals submitted to CONACyT (Mexican Nacional Science and Technology Council).
- BUAP Interlocutor for HELEN and EPLANET EU-Marie Curie Project Grant (2006-2012)
- General Coordinator of the Mexican Center for Nuclear Medical Physics Project.
- President of the HEP Division, Mexican Physical Society (2016-2018)
- Collaborator of the following experiments:
  - E791-Fermilab (1992-2002) representing my institution.
    Tasks: General data reconstruction and charmed barion studies.
    Leader of Universidad Autónoma de Puebla group (3 members).
  - Pierre Auger Collaboration (1996-2002)

Tasks: Design and development of the Auger Water Cherenkov detector; first version of the trigger (level 0) electronics cards for this detector; simulation studies of ultra-energetic cosmic rays; Leader of Universidad Autónoma de Puebla group (8 members, 1996-2002).

- ALICE Collaboration (2002-present)
  Tasks: Responsible of the Cosmic ray detector for ALICE (ACORDE). Studies on Cosmic rays at high energies, Contribution to ACORDE DCS, ACORDE electronics, TPC calibration using cosmics, ACORDE DAQ, ACORDE offline software.

Awards

- Premio Estatal de Ciencia y Tecnología (Puebla 2007)
- Premio Mentes QUO-Discovery Channel
- Fellowships: Master, PhD Student, Postdoc (CONACyT)
- Scientific Associated Position at CERN, Switzerland (2007-2008)

CURRICULUM VITAE

Dra. Carmen del Pilar Suárez Rodríguez
Profesor Investigador,
Coordinación Académica Región Huasteca Sur, UASLP
Escuela Normal de Estudios Superiores del Magisterio Potosino Plantel 5
Coordinator de Teacher Fellowship (Interamerican Teachers Education Network)
Organization American States
https://orcid.org/0000-0003-4482-8355

Licenciado en Electrónica Física, Facultad de Ciencias, UASLP. Maestría en Metalurgia e Ingeniería de materiales Facultad de Ingeniería, UASLP. Doctor en Física Educativa, CICATA, IPN. 5 diplomados y más de 2100 horas de capacitación en cursos en México y otros países.

30 años como docente en diferentes niveles educativos, desde nivel medio superior al Posgrado. Diseño e implementación actividades de divulgación para la promoción de la cultura científica en la población y el fomento de vocaciones científicas en niños y jóvenes. Ha impartido cursos en varios países incluidos España, Ecuador, Cuba, Francia, Chipre e Irán. En el área de divulgación de la ciencia ha participado activamente en la organización de eventos como ferias de ciencia, concursos, conferencias, talleres. Asesor de estudiantes ganadores en concursos internacionales como el 4th Persian Young Physicst Tournament, Millennium Project de la UNESCO, Nacionales: Concurso Nacional de experimentos diversos con aparatos de exhibición de Física, Expociencias Nacional, etc.

Distinciones:

- Sistema Nacional de Investigadores (SNI) Nivel I Are Ciencias Sociales y humanidades (2018-2020)
- Profesor Perfil deseable PRODEP (2018-2020)
- Estrategia educativa Modelo para la educación de las Américas otorgado por la OEA (2016) en San Juan de Puerto Rico.
- Mejor artículo del 2015 publicado en la Revista Europea de Física y seleccionado para su publicación adicional en el Highlights Colection 2015 al artículo "*Measurement of magnetic field of small magnets with a smarthphone: a very economical laboratory practice for introductory physics courses"*
- Mujer Tamazunchalense 2017 en el ámbito científico (Municipio de Tamazunchale).
- Mujer Potosina 2016 en el ámbito académico (Gobierno del Estado de San Luis Potosi).
- Profesor Destacado del Municipio de Tamazunchale (2015),
- Premio Estatal Docente, Colegio de bachilleres (2000),
- Reconocimiento al Mérito Universitario "José Ortega Romero", Universidad del Valle de México (2009).
- *Presidenta Electa de la Asociación Americana de Profesores de Física Seccion Mexico AAPT-Mx (2018-2019)*
- *Evaluador de varias revistas científicas y eventos de calidad así como de proyectos del consejo nacional de ciencia y tecnología, entre otros.*

Profesor Invitado:

- *XXV Taller Internacional de nuevas tendencias de enseñanza de la física 2017*
- *Profesor Invitado: Encuentro Nacional de profesores de física de la Sociedad Mexicana de Física 2016*
- *Profesor Invitado: American Physics Teacher Asociation AAPT 2013, 2014 y 2015*
- Encuentro Pedagogico Internacional 2017
- 43 Feria Nacional del libro San Luis Potosi

Con publicaciones en revistas arbitradas, indizadas de investigación y divulgación, capítulos de libros, 1 libroManu, manuales de prácticas de laboratorio.

Participación en más de **200 Eventos académicos locales, nacionales e internacionales** como ponente y tallerista

- Participación en 3 proyectos de investigación financiados, ninguno como IP. 2 Proyectos no financiados como IP
- Impartido 30 cursos a profesores y estudiantes en México y en el extranjero en países como Irán, Brasil, España, Ecuador.
- Líneas de investigación: "Formación docente en la clase de ciencias", "Procesos cognitivos y didácticos" "Transformación conceptual", "divulgación de la ciencia" y "estudio de biomoléculas".
- Estancias de investigación:
    - Facultad de Ingeniería Informática, Universidad de Castilla-La Mancha, Campus Albacete, 1 al 15 de marzo del 2014, cuerpo académico de Física Aplicada. Facultad de Medicina, Universidad de Castilla-La Mancha, Campus Albacete, 1 al 15 de marzo del 2015. Cuerpo académico de Biofísica.
    - Instituto Tecnológico Superior de Tecnologias aprovadas INSTA, Ecuador, agosto 2016.
    - Ariaian Young Innovative Minds Institute, Teheran, Iran, enero y junio 2011
- Gestión de convenios de colaboración: CECYTE Chapulhuacanito, 2013, Universidad de Castilla – La Mancha, España, 2015, Instituto Tecnológico de Tamazunchale, 2015, CIIDET (2015), en proceso INSTA.
- Coordinador de Carrera de Ingeniería Mecánica Eléctrica, Coordinación Académica Región Huasteca Sur (agosto 2013 – enero 2016).

- Coordinador local de: la Olimpiada de Física, olimpiada de Biología, Olimpiada de Química, Concurso Regional de Física y Matemáticas, expociencias, Semana Nacional de Ciencia y Tecnología, Organizador de Feria de Tamazunchale, Miembro Fundador de la Sociedad Potosina de Física. Conductora y responsable de la sección Ciencia y Mitos del Programa de televisión local Viernes al fin, Canal 9, SLP Vocal electo, representante de licenciatura de la Asociación Americana de profesores de Física, Sección México (AAPT-Mx), Organizador de eventos: Congreso Internacional ENESMAPO 2016, Encuentro de la Asociación Latinoamericana de enseñanza de las Ciencias, LASERA 2015, Encuentro de la Asociación Mexicana para la Enseñanza de las Matemáticas, entre otros.
- Miembro fundador y presidente del Grupo de Divulgación Ciencia en Contexto y de Miembro fundador de la Red de Divulgación para la ciencia, Tecnología e Innovación (REDICITII) del Consejo potosino de Ciencia y Tecnología. Presidente del Comité de Ciencias, del Consejo municipal de participación Social, Municipio de Tamazunchale, San Luis Potosí periodo (2012-2015 y 2015-2018). Comité del Consejo estatal de prevención de accidentes de la Secretaria de Salud. Gobierno del Estado de San Luis potosí (2007-2010). Mimbro del Consejo Municipal de seguridad Publica de Tamazunchale (2016) Miembro del Consejo Ciudadano del Municipio de Tamazunchale
- Arbitro de la Revista European Journal of Physics, Conferencia SIECI, Orlando Florida. , EEUU, Revista Panamericana de Pedagogía, saberes y quehaceres del pedagogo, Revista: TLATEMOANI, Revista Latin American Journal on Physics Education, Primer seminario Internacional de Estudiantes de Turismo "Turismo y Sociedad", Expociencias SLP Jurado Independiente 24th. International Young Physicst Torunament, Teheran, Iran,
- Editor Invitado de la revista Latin American Journal on Physics Education.

Comité Editorial: Revista Panamericana de Pedagogía ISSN**:** 1665-0557

Producción científica

Artículos

2018	Raúl Castillo Meraz, Roberto Carlos Martínez Montejano, Isaac Campos Cantón, Carmen del Pilar Suarez Rodríguez *Prototipo electromecánico didáctico para apoyar en la enseñanza sobre turbinas eólicas*. Lat. Am. J. Phys. Educ. Vol 12, No. 4, Dec. 2018. : http://www.lajpe.org/
2018	Bravo-Castillo, A., Suárez-Rodríguez, C. del P. and Ortega-Torres, N.I., Hábitos de la consulta bibliográfica de alumnos de Ingeniería Mecánica Eléctrica. Educación en Ingeniería, 13, (26), pp. 54-63, Julio, 2018. (En galera). DOI: http://dx.doi.org/10.26507/rei.v13n26.891
2017 2017	Estrategia enseñanza-aprendizaje basada en experimentos (ABE) para mejorar la comprensión de gráficas en Cinemática. Manuel Sandoval M, Maricela García Avalos, César Mora, Carmen del Pilar Suárez Rodriguez, Lat. Am. J. Phys. Educ. Vol. 11, No. 2, september 2017. Disponible en: http://www.lajpe.org/. Revistas Indizadas. Enseñanza del concepto de movimiento a velocidad constante y su representación gráfica mediante el uso de clases interactivas demostrativas con un video experimento Yesenia Cortez Reyes, Soraida Cristina Zúñiga Martínez y Carmen del Pilar Suárez Rodríguez. Lat. Am. J. Phys. Educ. Vol. 11, No. 2, June 2017. Disponible en: http://www.lajpe.org/. Revistas Indizadas.
2017	Reflexiones sobre la inclusión de la perspectiva ambiental en el nivel superior. Suarez-Rodríguez, C. Medina-Lerma, C. M., Gamboa-León, R., Aguilera-Alejo, G., Pérez-Orta, M. A. Lat. Am. J. Sci. Educ. 4, 22087 (2017). Disponible en: http://www.lajse.org/nov17.html. Revistas Arbitrada.
2017	Knowledge of Chagas disease among elementary school students in two areas rural and urban of the southern Huasteca of San Luis Potosi, Mexico. ISSN 1877-0428. doi 10.1016/j.sbspro.2017.02.202Ángeles Tangoa-Villacorta, Rubí Gamboa-León, Sandra Rubio-Martínez & Carmen del Pilar Suarez-Rodríguez. Procedia - Social and Behavioral Sciences 237 (2017) 1254 – 1259. Elsevier. Revistas Indizadas.
2017	Teaching Volume Concept Using B-Learning Strategy In High School On Huasteca Sur Potosina, MEXICO ISSN: 2350-0743, Suárez Rodríguez, C.P., Sandoval Martínez, M. Martínez Turijan, G., García Avalos, Sepulveda Palacios, International Journal Of Recent Advances In Multidisciplinary Research, Vol. 04, Issue 03, pp. 2383-2388, Revistas Indizadas
2017	Teaching Factoring Quadratics Using the Generic Rectangle for Sophomore Students ISSN: 2327-5499 doi:10.5296/ire.v5i1.10470, Manuel Sandoval Martínez, Maricela García Avalos, Gerardo E Sepúlveda Palacios, Carmen del Pilar Suárez Rodríguez, International Research in Education, Vol.5, Pag.86-99, Revistas Indizadas
2017	Conceptos acerca de la luz en niños de educación básica, Scientific Journal SLP. Article 4SJ, pp. 1-5. Available online February 28, 2017 Revistas Arbitradas
2017	Factibilidad de transformación de ideas previas sobre fuerza dirigida con concepciones asociadas a la aceleración. Scientific Journal SLP. Article 3SJ, pp. 1-6. Available online February 28, 2017 Revistas Arbitradas
2017	The vision of university students towards their future, ISSN: 1877-0428 doi:10.1016/j.sbspro.2017.02.202, C.P. Suarez Rodriguez, M. Ojeda Gutierrez, S. Vidales Felix, E. Arribas Garde, M. Sandoval Martinez, Pag. 1287-1295, ISSN: 2340 – 1079 doi: 10.21125/inted.2017.0445
2017	Go where the students are: groups in facebook to improve communication between students and educators Najera1, J. González-Rubio1, R. Ramírez-Vázquez1, C. Suarez pag. 93-99. ISSN: 2340-1079 doi: 10.21125/inted.2017.0134 R. Reolid1, M. Galán de Juana, J. González-Rubio, R. Ramírez-Vázquez, P. Gómez1, P. Suárez Pages: 7431-7438 ISSN: 2340-1079 doi: 10.21125/inted.2017.1721
2017	Change in the perception of medical students about the usefulness and importance of social media in their training and their future work after receiving a specialized training course. R. Reolid1, M. Galán de Juana, J. González-Rubio, R. Ramírez-Vázquez , P. Gómez1, P. Suárez. Pages: 7431-7438. ISSN: 2340-1079 doi: 10.21125/inted.2017.1721
2017	The scientific learning according to vigotsky. E. Arribas Garde1, I. Escobar, M.T. Franco, C. Suarez, S. Vidales Felix Pages: 9-16 ISSN: 2340-1079 doi: 10.21125/inted.2017.0106
2017	Teaching and learning active physics within framework of competencies. E. Arribas Garde, S. Maffey, R. Ramírez-Vázquez1, I. Escobar1, M.T. Franco2, S. Vidales Felix3, C. Suarez Pages: 17-25 ISSN: 2340-1079 doi: 10.21125/inted.2017.0108
2017	El celular inteligente una herramienta en la enseñanza de la fisica, Suarez Rodriguez Carmen del Pilar, Enrique Arribas Garde, Isabel Escobar, Revista Universitarios Potosinos, Vol.208, Pag.1-3, Revistas Arbitradas ,

2016	Learning physics with wolfram alpha ISSN: 2340-1079 doi: 10.21125/inted.2016.0341, I. Escobar, B. Cebrian, E. Arribas Garde, T. Franco, C. Suarez, S. Vidales Felix, A. Najera, A. Belendez, IATED Digital Library, Vol. , Pag.5598-5602, Memorias de congresos ,
2016	El impacto de la divulgación de la ciencia en el desempeño escolar ISSN: 1870-9095, Carmen del Pilar Suárez Rodríguez, Maricela Ojeda Gutiérrez, J. R. Martínez Mendoza, Cristina López Vázquez, Latin American Journal on Physics Education, Vol.10, Pag.26051-26059, Revistas Arbitradas ,
2016	The multidisciplinary application seminar in engineering as stage for development of higher order cognitive skills ISSN: 2340-1079 doi: 10.21125/inted.2016.1595, C.P. Suarez Rodriguez, E. Arribas Garde, I. Escobar, R. Gamboa-León, G. Arroyo Delgado, S. Vidales Felix, IATED Digital Libraries, Vol. , Pag.2724-2732, Memorias de congresos ,
2016	A conceptual map about alternating current circuits ISSN: 2340-1079 doi: 10.21125/inted.2016.0340, E. Arribas Garde, I. Escobar, T. Franco, C. Suarez, S. Vidales Felix, Y. Benitez, S. Maffey, Y. Dominguez, J. Besanilla, C. Garcia-Olguin, J. Gonzalez-Rubio1, A. Najera1, A. Belendez, IATED Digital library, Vol. , Pag.5591-5597, Memorias de congresos ,
2016	Learning of physics, beliefs and attitudes of students of engineering, an educational intervention ISSN: 2340-1079 doi: 10.21125/inted.2016.1632, C.P. Suarez Rodriguez, C.E. Mora-Ley, E. Arribas Garde, M.H. Ramirez Diaz, IATED Digital library, Vol. , Pag.2841-2850, Memorias de congresos ,
2016	Learning about light properties using a system for two optical signal processing ISSN: 1870-9095, G. Ramírez-Flores, A. Rodríguez, S. Guel, Pilar Suarez-Rodríguez, Layla Torres Luna, Latin American Journal on Physics Education, Vol.10, Pag.24011-24015, Revistas Arbitradas
2015	Learning and evaluation of terminal velocity in a college physics ISSN: 2340-1079, C.P. Suarez Rodriguez, C. Mora Ley, M.H. Ramirez Diaz, E. Arribas Garde, IATED Digital library, Vol. , Pag.6064-6074, Memorias de congresos
2015	El modelo recursivo de enseñanza de las ciencias (REC) para el aprendizaje de la velocidad terminal en estudiantes de ingeniería ISSN: 1870-9095, Carmen del Pilar Suárez Rodríguez, César Mora, Mario Humberto Ramírez Díaz, Manuel Sandoval Martínez, Enrique Arribas Garde, Latin-American Journal of Physics Education, Vol.9, Pag.1-5, Revistas Indizadas
2015	Measurement of the magnetic field of small magnets with a smartphone: a very economical laboratory practice for introductory physics courses ISSN: 0143-0807 doi:10.1088/0143-0807/36/6/065002, Enrique Arribas, Isabel Escobar, Carmen P Suarez, Alberto Najera and Augusto Beléndez, European journal of Physics, Vol.36, Pag.1-11, Revistas Indizadas ,
2015	Reply to Comment on 'Measurement of the magnetic field of small magnets with a smartphone: a very economical laboratory practice for introductory physics courses' ISSN: 0143-0807 doi: 10.1088/0143-0807/37/2/028002, Enrique Arribas, Isabel Escobar, Carmen P Suárez, Alberto Nájera and Augusto Beléndez, European Journal of Physics, Vol.37, Pag.1-3, Revistas Indizadas ,
2015	Aproximación y difusión de la Enfermedad de Chagas en dos comunidades de México por medio de colecciones entomológicas creadas con los estudiantes de primaria ISSN: 2344-9225, Rubi Gamboa-León, Guillermo Meza-González, Ángeles Tangoa-Villacorta, Carmen del Pilar Suarez-Rodríguez, Fernando Collí-Balam, Ángel Rivero-Góngora, Javier Cámara-Mejía, Revista de educación en Biologia, Vol.18, Pag.79-87, Revistas Indizadas ,
2015	Creating advanced quizzes using moodle ISSN: 2340-1079, I.M. Escobar Garcia, C. Suárez, A. Rojas, S. Maffey, S. Llorens, A. Nájera, E. Arribas Garde, A. Belendez, IATED Digital Library, Vol. , Pag.119-126, Memorias de congresos
2014	Using the Wheatstone bridge as a tool for active learning ISSN: 2340-1079, C.P. Suarez, E. Arribas, I.M. Escobar, A. Nájera, M. Ojeda, A. Roja, IATED Digital Library, Vol. , Pag.1766-1771, Memorias de congresos
2014	De frente a la ciencia, Carmen del Pilar Suarez Rodriguez, Universitarios Potosinos, Vol.178, Pag.9-9, Revistas Arbitradas
2014	Comparison among sophomore and undergraduate students about electric circuits understading ISSN: 2007-9842, Manuel Sandoval Martínez, Pilar Suarez-Rodriguez, Latin American Journal of Science Education, Vol.1, Pag.1-9, Revistas Arbitradas
2014	Analisis Molecular de Almidones de frijol cultivados en la huasteca potosina ISSN: 1946-5351, Vicente Espinosa Solis, Oscar Manuel Portilla, Carmen del Pilar Suarez Rodriguez, Dolores Saavedra, Imelda Esparza Alvarez, Academia journals, Vol.6, Pag.1328-1332, Memorias de congresos ,
2014	Metacognition and learning by discovery: application to the case of an infinite network of capacitors ISSN: 2340-1079, C.P. Suarez, E. Arribas, I.M. Escobar, A. Nájera, M. Ojeda, A. Rojas, IATED Digital Library, Vol. , Pag.1733-1741, Memorias de congresos ,
2013	El efecto del aprendizaje en proyectos colaborativos y contextualizados en la percepción del alumno sobre la física y su conexión con el mundo real ISSN: 1989-9300, Pilar Suárez- Rodríguez, Maricela Ojeda Gutiérrez, Cesar Mora, J. R. Martínez Mendoza, Tlatemoani Revista Académica de Investigación, Vol.14, Pag.1-24, Revistas Arbitradas

Libros

2000 Estructuras de Computadoras, Suarez Rodríguez Carmen del Pilar, Eduardo Tenorio, SEGE-COBACH

Capítulos de libros

2018 La personalidad emprendedora el desarrollo de competencias profesionales en estudiantes de la Huasteca Potosina. En J. Neri Velzquez, El emprendimiento y los Jóvenes. Editorial Plaza y Valdez. Pagina 181 a 202. Suarez Rodríguez, C. P y otros.

2018 La perspectiva de violencia de género en jóvenes unviersitarios. En J. Neri Velzquez, El contexto social y económico de la dimensión de género midiendo la percepción e incidencia de jovenes universitarios. Editorial Plaza y Valdez Suarez Rodriguez, C. P. y otros

2017 Modelo Integral para el Sistema de Gestión de Residuos Sólidos Urbanos en Instituciones Educativas, Políticas de gestión y estrategias para fortalecer el desarrollo local de México UPSLP Colección Triple Hélice, Editorial Plaza y Valdés s.a. de c.v., Vol. 3, Pags. 514, Raquel Ramírez Vázquez, Carmen del Pilar Suárez Rodríguez, Enrique Arribas Garde

2016 El transporte público y las zonas turísticas en la región huasteca sur, Turismo, Sociedad y Cultura, Visiones interdisciplinarias para el desarrollo Fundación Red Iberoamericana De Ciencia, Naturaleza Y Turismo, Editorial RECINATUR, Vol. 1, Pags. 254, Carmen del Pilar Suarez Rodríguez, Rodolfo Morales Pecina, Víctor Antonio Marcial, Gustavo García Serapio, Anuar Mayorga Castro

2016 Tecnologías de transformación de frijol bajo un enfoque sustentable: Comunidad indígena, Xiliapa, SLP., Tecnología y desarrollo sustentable: avances

en el aprovechamiento de recursos agroindustriales Universidad Autónoma de Tamaulipas, COLOFÓN, Vol. 1, Pags. 393, Ramírez Sedeño, Portilla, Suarez Rodríguez, Ovando Martínez, Espinosa Solís

2015 En el camino de la construcción: la visión emprendedora de la Coordinación Académica Región huasteca Sur, Practicas exitosas en la implementación de políticas de innovación y competitividad local: "Redes de conocimiento y cooperación empresa-gobierno-universidades-centros de investigación" UPSLP, Colección Triple Hélice, Plaza y Valdés S.A. De C.V., Vol. 2, Pags. 483, Vicente Espinosa Solis, Dolores Saavedra, Carmen del Pilar Suarez Rodríguez, Patricia Hernández

2015 La planeación en la elaboración de OA interactivos para la enseñanza de las ciencias, Introducción a la Ciencia, la Tecnología y la innovación en la UASLP UASLP, UASLP, Vol. 3, Pags. 560, Moreno Zamudio Tomas de Jesús, Suarez Rodríguez Carmen del Pilar

2015 El aprendizaje activo y las clases interactivas demostrativas en la elaboración de un objeto de Aprendizaje, Introducción a la Ciencia, Tecnología y la innovación en la UASLP UASLP, UASLP, Vol. 3, Pags. 560, Cortez Reyes Yesenia, Suarez Rodríguez Carmen del Pilar

2014 La Utilización de un libro interactivo para promover el aprendizaje sobre la enfermedad de Chagas en estudiantes de primaria, Introducción a la Ciencia, Tecnología y la Innovación en la UASLP ISBN: 978-607-9343-55-2 UASLP, UASLP, Vol. 2, Pags. 5, López Zúñiga Francisco Javier, Suarez Rodríguez Carmen del Pilar, Gamboa León Rubi

2014 Desarrollo Agroindustrial en la Huasteca Sur: Una propuesta de elaboración de un alimento funcional a partir de la fibra de magnifica indica L, Practicas exitosas en la implementación de políticas de innovación y competitividad en el ambiente de negocios local UPSLP Colección Triple Hélice, Plaza y Valdés S.A. De C.V., Vol. 1, Pags. 559, Vicente Espinosa Solis, Carmen del Pilar Suarez Rodríguez, Xochiquetzal castillo Zuñiga, Xochitl Anahí Quezada Vargas

Reportes técnicos

15/12/2014 Asesoría sobre implementación de proyectos de investigación educativos, Dirección Escuela Primaria Prof Macedonio Acosta, Miriam Rubí de los Milagros Gamboa León, Págs. 4. (Nacional)

3/03/2018 Asesoría a la Comunidad de "EL Jabalí", Aquismón, San Luis Potosí, México, en materia de desarrollo local y competitividad, en colaboración con miembros de la Red de Ciencia Tecnología y Turismo RECINATUR con sede en Chile. (Nacional)

11/2016 Asesoría Técnica Plan de acción para la gestión de zonas de interés turístico (Internacional). Subsecretaria de Turismo del Gobierno de Chile, Comuna Puerto de Corral, Chile. (Internacional)

Reseñas de libros

Burbuja Viajera de la Ciencia, La Ciencia en verso, Burbuja Viajera de la Ciencia, La Ciencia en verso, Critica , Pag. 353-353

2015 Antología de lecturas de física, Coordinación Académica Región Huasteca Sr, UASLP

2014 Manual de acompañamiento de cálculo diferencial e integral basado en competencias. Coordinación Académica Región Huasteca Sr, UASLP

2016 Manual de prácticas de laboratorio de Física, Coordinación Académica Región Huasteca Sr, UASLP

2017 Manual de rubricas de evaluación de contenidos de física

Dr. Dewey I. Dykstra, Jr. Informal CV

Dr. Dykstra began his teaching career as a high school teacher at East Technical High School in Cleveland, Ohio after earning a B. S. in Physics from Case Institute of Technology in 1969. After teaching high school Physics for four years, the last one in Maryland at Middletown Junior-Senior High School, he entered graduate school, at The University of Texas at Austin, in Condensed Matter Physics. He earned his Ph. D. with a thesis in Chemical Physics in 1978, under Dr. Wm. D. McCormick.

Early he was identified as being a science-oriented student because of his interest in science fiction in the third grade. In Junior High school, his interest in science blossomed participating in science fairs with projects oriented toward solar energy. He was a participant in the National-International Science Fair in Albuquerque, NM in 1962. The science fair projects thru his senior year in High School and his participation in a Physical Science Study Committee (PSSC) Physics course there, led him to choose Physics as his intended career.

His joy in Physics is that in Physics you get to work on figuring out new understandings of the world. This focus on developing new understanding was compatible with his teaching in the schools. His experiences teaching at the high school and undergraduate levels led him to realize what he thought should happen in physics teaching was not happening. This realization resulted in his focus on the question: how, why, and under what circumstances do people appear to change their understanding of physical phenomena?

Along the way, Dr. Dykstra was a member of the Physics Faculties at Oklahoma State University and Boise State University. He has been an active member of the American Association of Physics Teachers (AAPT), making many contributed and invited presentations at section and national meetings, serving as national committee chair of several committees, member of the Board of Directors and the Section Representatives, and member/author in the AAPT Powerful Ideas in Physical Science Project.

Kateřina Žilavá

(*12th August 1996)

Affiliation: Department of Physics Education, Faculty of Mathematics and Physics, Charles University

Position: Student

Qualification:

2016 (graduation exam)	Gymnázium Pierre de Coubertine in Tábor (grammar school, eight-year study)
since 2016	Charles University, Faculty of Mathematics and Physics, study of mathematics and physics teaching on lower and higher secondary schools (Bachelor's study)

Specialization and interests:

Katerina Zilava is a student of Charles University, Faculty of Mathematics and Physics, study programme Physics directed towards education. She is a member of a group of university lecturers and students that go to schools across the country and presents experimental show called "Fyzika všemi smysly" (Physics by your feeling) to younger (secondary school) students.

She is a longtime chess player. She taught chess basics to pupils at primary school for 4 years and co-organized summer chess camps. She now regularly trains chess basics in kindergarten.

She has been working with Scouts in her hometown for 9 years (preparing summer camps, meeting programs, including science experiments).

Teaching practice:

- presentation of simple science experiments for high school students
- teaching the basics of chess in elementary school and kindergarten

Other activities:

- Bachelor's thesis about Cavendish experiment - measurement of the Newtonian gravitational constant, G
- student project at Charles University, Faculty of Mathematics and Physics with Vernier Structures Material Tester
- cooperation in the preparation and realization of the program for students from primary to grammar school called "Vědohraní" ("Playing with science")

Laura Ríos

Curriculum Vitae
May 2019

Department of Physics 390 UCB
University of Colorado Boulder
Boulder, CO 80309-0390
laura.rios@colorado.edu

Education

2017 PhD, Chemistry
University of California, Irvine
Committee: V. Ara Apkarian, Matt D. Law, Eric O. Potma
Thesis: Toward the Space-time Limit: Chemistry in a Small Junction

2012 B.A., Chemistry
Oberlin College

Professional Employment

Beginning Sept 2019 Assistant Professor, Physics Department
Physics Education Research
California Polytechnic University San Luis Obispo

Jun 2017 – present Postdoctoral Associate, Physics Education Research
University of Colorado Boulder

Publications

Submitted manuscripts

2019 Using the LifeGrid interview technique in science education research. A.A. Rowland, D. R. Dounas-Frazer, L. Ríos, H. J. Lewandowski, L.A. Corwin. *Submitted to International Journal of STEM Education.*

Using think-aloud interviews to characterize model-based reasoning in electronics for a laboratory course assessment. L. Ríos, B. Pollard, D.R. Dounas-Frazer, H.J. Lewandowski. *Submitted to Physical Review Physics Education Research*

Refereed journal articles

2018 Pathways to proposing causes for unexpected experimental results. L. Ríos, B. Pollard, D.R. Dounas-Frazer, H.J. Lewandowski, 2018 PERC Proceedings Washington, DC, August 1-2, 2018, edited by A. Traxler, Y. Cao, and S. Wolf.

2018 Characterizing lab instructors' self-reported learning goals to inform development of an experimental modeling skills assessment. D. R. Dounas-Frazer, L. Ríos, B. Pollard, J.T. Stanley, H. J. Lewandowski. *Phys. Rev. Phys. Ed. Res.* **2018,** *14* (2), 020118

2016 Hovering and twirling of thiol-tethered molecules by confinement between surfaces. L. Ríos, J.H. Lee, N. Tallarida, V. Ara Apkarian. *J. Phys. Chem. Lett.*, **2016**, *7* (13), 2461—2464

2015 Isomerization of One Molecule Observed through Tip-Enhanced Raman Spectroscopy. N. Tallarida, L. Ríos V.A. Apkarian, J.H. Lee. *Nano Lett.*, **2015**, *15* (10), 6386—6394

2015 Hydroxylamine catalyzed Nazarov cyclization of divinyl ketones. J. Z. Hamilton, N. T. Kadunce, M. D. MacDonald, L. Ríos, A. R. Matlin, *Tet.Let.* **2015**, *56* (47), 6622—6624

2014 Single Electron Bipolar Conductance Switch Driven by the Molecular Aharonov–Bohm Effect. J.H. Lee, N. Tallarida, L. Ríos, S. M. Perdue, and V. A. Apkarian, *ACS Nano*, **2014**, *8* (6), 6382—6389

2012 Visualizing Capsaicinoids: Colorimetric Analysis of Chili Peppers. R.Q. Thompson, C. Chu, R. Gent, A. P. Gould, L. Ríos, and T. M. Vertigan. *J. Chem. Edu.*, **2012**, *89* (5), 610—612

2011 From Folklore to Molecular Pharmacophores: Cultivating STEM Students among Young, First-Generation Female Mexican-Americans. J. Gardea, L. Ríos, R. Pal, J. L. Gardea-Torresdey, and M. Narayan. *J. Chem Edu.*, **2011**, *88* (1), 41—43

Conference Presentations

Invited oral presentations

May 2019 "Effective practices for instruction in laboratory courses." (tentative title). Taller Internacional Nuevas Tendencias en la Enseñanza de la Física. Benemérita Univerisdad Autónoma de Puebla. Puebla, Puebla, México.

April 2019 "Identifying teaching practices that foster project ownership in physics labs." American Physical Society April meeting. Denver, CO

Oct 2018 "Assessing and encouraging authentic physics labs." California Polytechnic University San Luis Obispo Physics Department colloquium. San Luis Obispo, CA.

Oct 2016 "What Photons Tell Us about Chemistry." SACNAS National Diversity Conference 2016. Long Beach, CA

Nov 2014 "Playing with Light: Waves and Optics Activities." Promoting NGSS Science and Engineering Practices in Your Classroom Using Physical Science. Future of Science Teachers Workshop. Irvine, CA

Contributed oral presentations

July 2018 "Pathways to proposing causes for unexpected experimental results." AAPT 2018 Summer meeting. Washington D.C.

April 2016 "Single molecule chemistry with submolecular resolution." Associated Graduate Students Research Symposium. Irvine, CA

Dec 2015 "Isomerization of a single molecule on an STM tip." Pacifichem: The International Chemical Congress of Pacific Basin Societies. Honolulu, HI

Oct 2015 "Manipulation of Light and Electrons with Submolecular Resolution." SACNAS National Diversity Conference 2015. Washington, D.C.

Oct 2011 "Novel cyclization mechanism for the Nazarov reaction: mechanistic computational studies." ACS meeting-in-miniature. Oberlin, OH.

Contributed poster presentations

July 2018 "Challenges with proposing causes for unexpected experimental results." Physics Education Research Conference 2018. Washington, D.C.

June 2016 "Bias—dependent motion of thiol-tethered azobenzene molecules on Au(111)." Physical Electronics Conference 2016. Lafayette, AK.

April 2014 "A single Jahn-Teller active electron as a multi-throw multipolar conductance switch." American Physical Society April Meeting 2014. Denver, CO.

Oct 2014 "Imaging vibronic dynamics at the STM junction: Manipulation of light and current through a single electron on a single molecule." Dynamics, Interactions, and Electronic Transitions at Surfaces Conference. Asilomar, CA

Meetings Organized

Effective Practices for Final Projects in Undergraduate Physics Lab Courses. Provo, Utah. 2019 — AAPT Summer Meeting — *Workshop*

Effective Practices for Final Projects in Undergraduate Physics Lab Courses. Washington, D.C. June 29, 2018 — AAPT Summer Meeting — *Workshop*

Science + Technology for a post-capitalism and regenerative society, by Kendra Krueger. CU Boulder. Feb 20, 2018 — CU Café Seminar Series — *Workshop*

Three laws of communication, by Dr. Jean-luc Doumont University of California, Irvine. May 2, 2017 — OSA student chapter — *Workshop*

Light Symposium: International Year of Light University of California, Irvine. May 4-5, 2015 — OSA student chapter — *Symposium*

Teaching Experience

Teaching Assistant

Sp 2014	Physical Chemistry Laboratory	UC Irvine
	Designed activities, curriculum and assessments	
Sp 2013	Physical Chemistry Laboratory	UC Irvine
	Designed activities and assessments	
Wt 2013	Chemistry 1B	
Fa 2012	Pre-Introductory Chemistry	UC Irvine

Volunteer Instructor

Su 2017	GoldShirt Engineering Bridge program	
	Designed curriculum, lessons, activities	CU Boulder
Su 2017	ASPIRE Summer bridge program	
	Designed curriculum, lessons, activities	CU Boulder
Su 2013	COSMOS program, UC Irvine	
	Designed activities, curriculum	UC Irvine
2012-2016	Boys & Girls Club outreach program	
	Designed activities, lessons	UC Irvine
2009-2012	Du Bois After-School Math program	
	Designed curriculum, activities	Oberlin College

Tutor

2009-2012	Introductory Chemistry	Oberlin College
2010-2012	Science after-school tutoring	Ezperanza, Inc., Cleveland, OH

Honors and Awards

2017	Ford Foundation Dissertation Fellowship, awardee
2013-2017	National Science Foundation Graduate Research Fellow
2015	Society for the Advancement of Chicanos and Native Americans in Science / The American Society for Biochemistry and Molecular Biology Award for an outstanding research presentation
2014	UC Irvine Graduate Award for Departmental Service
2012	Chemistry at the Space-Time Limit Diversity Fellow
2012	Hypercube Scholar Award
2011	ACS meeting-in-miniature best research presentation, (organic chemistry)
2010-2012	National Science Foundation Computation and Modeling S-STEM Scholar

Service to the Profession

2019	Committee on Undergraduate Education of the American Association of Physics

	Teachers, member
2017-pr.	Undergraduate travel scholarship and graduate presentation abstract reviewer for SACNAS National Diversity Conference
2017-pr.	CU Café Seminar Series Coordinator
2014-2017	President, Optical Society of America (OSA)/SPIE student chapter at UC Irvine
2013-2014	Vice-President, OSA/SPIE student chapter at UCI
2017	Adopt-a-Physicist program, Sigma Pi Sigma Physics Honor Society
2017	SACNAS mentor-judge at SACNAS National Diversity Conference 2017
2013-2016	Contributed to NSF-CCI site visit for Chemistry at the Space-Time Limit (CaSTL) center (poster and presentation for outreach)
2016-2017	DECADE PLUS graduate student mentor
2015-2017	DECADE Physical Sciences Graduate Student Council

Professional affiliations/memberships

Optical Society of America · Sigma Xi · Iota Sigma Pi · American Chemical Society · American Physical Society · Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) · American Association of Physics Teachers (AAPT)

RNDr. **Peter Žilavý**, Ph.D.

(*29th September 1971)

Affiliation: Department of Physics Education, Faculty of Mathematics and Physics, Charles University

Position: lecturer

Academic qualification:

2001 – Ph.D., RNDr.	Charles University, Faculty of Mathematics and Physics, Physics of Plasmas and Ionized Media Doctoral thesis: Charging of solid bodies
1999	Charles University, Faculty of Mathematics and Physics, study of physics teaching and education of future physics teachers for lower and upper secondary schools (complementary course)
1996 – Mgr. (MSc)	Charles University, Faculty of Mathematics and Physics, Physics

Research specialization:

Peter Zilavy received MSc and PhD degrees from Charles University in Prague, Czech Republic in 1996 and 2001, respectively. At present, he works as a scientist and lecturer at the Department of Physics Education, Faculty of Mathematics and Physics, Charles University in Prague. His research interests include laboratory and computer simulations of elementary processes in dusty plasmas, and the development of school physics experiments and teaching aids.

Teaching practice:

- *university:* courses on practical electronics
- *secondary school:* computer science and physics in grammar school (since 1997, part-time job)
- *in-service teachers:* courses on electricity and magnetism focused on school experiments

Other activities:

- supervisor of educational program “World of energy” of the Czech energy company for physics teachers.
- reviews of high school textbooks
- development and distribution of teaching aids for school physics experiments
- supervisor of 3 bachelor's theses and 4 master's theses

Selected publications:

Žilavý P.: Experiments with an induction cooker, Phys. Educ. Vol. 44, No. 6, 2009, 607-611, ISSN 0031-9120.

Žilavý P., Richterová I., Němeček Z., Šafránková J., Pavlů J.: The influence of ion bombardmennt on emission properties of small dust grains, Czech J Phys, Vol. 55, No. 10, 2005, 1283-1291.

Žilavý P., Pavlů J., Němeček Z., Šafránková J.: Energy Distributions of Secondary Electrons Under Different Conditions, AIP Conference Proceedings, October 31, 2005, Volume 799, 391-394.

Žilavý P., Sternovský Z., Čermák I., Němeček Z., Šafránková J.: Surface potential of small particles charged by the medium energy electron beam, Vacuum, Vol.50, 1-2, 1998, 139-142.

Rebecca Elizabeth (Wenning) Vieyra

CONTACT INFORMATION

Cell: (309) 824-8853
Personal e-mail: rebecca.elizabeth.vieyra@gmail.com
ORCID ID: https://orcid.org/0000-0001-7720-6558

EDUCATION

2021 *(anticipated)* **University of Maryland**, College Park, MD
Ph.D. Science Education, Advisor - Andrew Elby

2010 **Illinois Institute of Technology**, Chicago, IL
M.A.S. Science Education, Emphasis on teacher leadership

2007 **Illinois State University,** Normal, IL
B.S. Physics Education
Summa Cum Laude, Bone Scholar (one of top 14 in class)

WORK EXPERIENCE

2018-Present **Coordinator of Inter-American Teacher Education Network**, Organization of American States (consultant), Washington, DC *Full time*

Authored Phase IV proposal of the Inter-American Teacher Education Network to enhance the capacity of educational leaders in the Americas to identify good policies and practices in STEM teacher education. Used results-based management to design proposal; crafted $2.5M budget; sought out programmatic partnerships; prepared tools for monitoring, research, and evaluation.

2015-2018 **K-12 Program Manager**, American Association of Physics Teachers, College Park, MD *Full time*

Managed initiatives for pK-12 education and undergraduate pre-service teacher education. Led grant proposal writing and management, and was awarded over $8.4M in collaborative grants from the National Science Foundation, National Aeronautics and Space Administration, American Institute of Physics, and 100Kin10. Led the national Physics Master Teacher Leader task force to offer strategic guidance to the association and edited the *Aspiring to Lead* report, and served *ex officio* on committees associated with pK-8, high school, pre-service, and technology education.

Committees/Review Panels:

- 100Kin10 Leadership Advisory Council
- 100Kin10 Teacher Advisory Council
- Albert Einstein Distinguished Educator Fellowship (Review Panel)
- American Institute of Physics Physical Science Education Policy Coalition

- American Institute of Physics Science Writing Awards, Writing for Children
- American Association for the Advancement of Science *Science in the Classroom* Advisory Board
- NASA Office of Education (Review Panel)
- Carnegie Corporation of New York (Review Panel)
- The Optical Society, Education Committee

2015-2017 **NASA International Forum for Aviation Research (IFAR) Young Researcher Network Coordinator**, WYLE, contracted by Ames Research Center for work with NASA HQ *Part-time*

Served as the leader for the IFAR Young Researcher Global Conferences group, as part of the wider IFAR initiative to coordinate international efforts between 27 nations and their aeronautical research federal agencies, organizations, and universities (including NASA's Aeronautics Research Mission Directorate). Supported the networking of over a hundred young researchers from around the global through virtual technical interchanges and broadcasting of international conferences. Coordinated the third Young Researcher Conference as part of the IFAR executive Summit at NASA's Ames Research Center (3-10 October 2015), with representatives from over 25 member nations. Supported the development of the Early Career Network.

2015-2018 **Graduate Course Instructor,** NASA Endeavor STEM Teacher Certificate Project, *Part time*

Taught online courses (*Physical Science in Motion, Physics for Real Beginners)* to in-service K-12 STEM educators, including physics and astronomy content, physics and astronomy teaching pedagogy, alignment to 21st century standards (including the Framework for K-12 Science Education and the Next Generation Science Standards), and digital resources from NASA.

2014-2015 **Albert Einstein Distinguished Educator Fellow**, placed at NASA HQ in the Aeronautics Research Mission Directorate, managed by the U.S. Dept. of Energy through the Triangle Coalition for STEM Education *Full time*

Coordinated efforts of the IFAR Young Researcher Network for a coalition of 27 member nations. Authored three different educators' guides for pK-12 education, including for the IMAX "Living in the Age of Airplanes" movie production, and resources presented to children at the White House Take Your Daughters and Sons to Work Day. Worked to achieve a Space Act Agreement between NASA and the American Association of Physics Teachers to promote aeronautics education in formal contexts. Served on various panels, including the National Science Foundation Joint Science Education Project for student researchers to Greenland, U.S. Army eCyberMission and the Student Spaceflight Experiments Program.

2014-2017 **Item Writer/Expert Reviewer**, for National Board for Professional Teaching

Standards for Adolescent/Young Adult Science - Physics assessment, (selected response items and free response items), Pearson *Temporary*

2014 **Item Writer**, for Georgia state science assessments, Trivium Education Services *Temporary*

2008-2014 **Science Teacher (Physics & Engineering)**, Cary-Grove High School, Crystal Lake, IL *Full time*

Taught Regular Physics, Honors Physics, Physical Science, and Project Lead the Way's Principles of Engineering courses. Co-coached the school's Science Olympiad Team. Served on Next Generation Science Standards curriculum alignment committee. Participated in National Science Foundation-funded educational gaming research with three sections of students. Participated as the first high school teacher in the nation to beta-test Tablets with Google Play for Education.

2010, 2013 **Science Teacher/Curriculum Developer (Physics)**, Lab School of Science and Technology, Naperville, IL *Temporary*

Taught Physics I and Physics II to advanced 5th-9th grade students during 2-week condensed courses.

2010 **Curriculum Developer**, Woodstock Challenge Learning Center, Woodstock, IL *Temporary*

Developed astronomy and aeronautics curriculum for teacher professional development. Assisted in the design of an exhibit space regarding solar power.

2009 **Graduate Course Co-Instructor** (contracted), Physical Science for Middle School Teachers, Illinois State University

Taught 12 teachers enrolled in a special graduate program for Illinois Peoria School District.

2007-2008 **Science Teacher (Physics & General Science)**, East Peoria Community High School, East Peoria, IL *Full time*

Taught Regular Physics, Accelerated Physics, Physical Science, and Survey of Science. Coordinated multiple public observing sessions at the school's observatory. Co-coordinated the first annual "Go Green" festival.

2004-2006 **Teaching Fellow**, for National Science Foundation GK-12 Partnerships for Research in Science and Math (PRISM) Education *Part time*

Supported in-service STEM teachers in central Illinois and their students through team-teaching of innovative lessons. Worked in 12 private and public schools and with over 1,300 pK-12 students.

2006 **K-8 Workshop Co-Instructor** and **Exhibit Developer**, Sugar Grove Nature

Center, McLean, IL *Temporary*

Developed and taught workshops for homeschooled students on topics dealing with pollinators, seeds, and amphibians. Developed exhibit on beekeeping.

2004-2005 **Undergraduate Physics Researcher**, Intense Laser Physics Theory and Experimental Groups, Illinois State University, Normal, IL *Temporary*

Supported the theoretical and experimental groups investigating the transmission of light in turbid media. Assisted in both theoretical development of the model as well as experimental set-up.

2004-2005 **Undergraduate Physics Teaching Assistant / Lab Instructor**, PHY 102, 110, and 111, Illinois State University, Normal, IL *Temporary*

Independently taught lab sections for introductory physics courses. Scored all student work. Revised lab curriculum resources for PHY 110 and 111 based upon inquiry models.

ENTREPRENEURIAL EXPERIENCE

2013-Present **Co-Founder**, Vieyra Software, www.vieyrasoftware.net

Vieyra Software is a philanthropic effort to provide students, teachers, and technical professionals with free smartphone-based sensor apps to (1) harness the power of mobile sensors, (2) enhance science education, and (3) facilitate research and industrial use. We have 22 Android and 4 iOS apps, currently downloaded well over 1 Million times across all countries where Google Play Store is available. Vieyra Software apps have been cited in over 90 peer-reviewed journals, and used in fields as far-ranging as education, engineering, and medicine.

GRANTS

2018 Inter-American Teacher Education Network Phase 4. Funding from the U.S. Permanent Mission to the Organization of American States. **$2,500,000** (proposal developer and Coordinator)

2018 AAPT/AIP Master Teacher Instructional Fellowship - Underrepresented Teachers of Physics. American Institute of Physics Venture Partnership Fund **$99,430** (PI at time of award, transferred)

2018 100Kin10 Collaboration Grant to develop a research plan for AAPT's STEM Teacher Leadership Activities. **$3,000** (PI)

2018 Collaborative Research: Conference on Advancing the Integration of Interdisciplinary Computational Thinking in the Physical Sciences and Life Sciences. NSF STEM+C/DRK12 1640791 **$92,374** (co-PI June 2018-present)

2018-2021	Mapping Fields in Augmented Reality with Personal Mobile Devices: Enhancing Visualization Skills for Education and Industry. NSF Cyberlearning 1822728 **$382,689** (co-PI July 2018-present)
2018	Collaborative Research: Get the Facts Out: Changing the Conversation around STEM Teacher Recruitment. NSF DUE 1821462 **$3,000,000** (co-PI June 2018-November 2018, consultant November 2018-present)
2018	CAREER: Excitons, Electron-hole Plasmas, and Electron-hole Liquids in the Time Domain. NSF PHY DMR 1752713 **$200,000** **Named in grant as collaborator on education component.*
2018	100Kin10 Collaboration Grant to expand the Math Teachers Circle model to the physics community. **$2,950** (PI)
2017-2018	AAPT/AIP Master Teacher Policy Leader Fellowship. American Institute of Physics Venture Fund Partnership **$98,000** (PI December 2017-November 2018, consultant November 2018-present)
2017-2018	Collaborative Research: Mobilizing Teachers to Increase Capacity and Broaden Women's Participation in Physics. NSF DRK12 #1720869. **$3,000,000** (PI June 2017-present)
2017-2018	Family Mobile Physics Challenge. Awarded (as contractor) through the American Physical Society Mini Grant Program through NSF PHY #1404843. **$10,000** (PI)
2017	100Kin10 Collaboration Grant to develop a Physics at All Levels program proposal. **$3,000**
2017	100Kin10 Collaboration Grant to develop a Teacher Leader Agency and Advocacy program proposal. **$3,000**
2016-2018	NASA Heliophysics Education Consortium: Research-Based Teaching Resources for Undergraduate Physics and Astronomy Education. NASA Grant/Cooperative Agreement #NNX16AR36A, **$245,000** (PI August 2016-November 2018, consultant November 2018-present)
2016-2019	Research on the Integration of Computational Modeling and Algebra-Based Physics to Improve Teaching and Learning of Computational Thinking. NSF STEM+C #1640791. **$1,344,163.00** (co-PI September 2016-present)
2016-2017	Bootstrap, Modeling, and Physics First. 100Kin10 NY CS + Engineering Grant. **$195,000** (co-PI)
2016	100Kin10 Collaboration Grant. **$2,150**
2015	100Kin10 Collaboration Grant. **$3,000**
2013	District 155 Technology Innovation Grant classroom mobile technology, **$25,000**

2012 Cary-Grove Annual Grant (Anonymous donor), **$279**

2010 Cary-Grove Annual Grant (Anonymous donor), **$350**

PUBLICATIONS

Books

Wenning, C. & **Vieyra, R.** (25 May 2015). *Teaching High School Physics: Vol. I, Vol. II, & Vol. III.* Kindle Direct Publishing. Retrievable from Amazon.com. Visit teachinghighschoolphysics.net.

Book Chapters

Hite, R., **Vieyra, R.**,Milbourne, J., Dou, R., Spuck, T., Smith, T. (2019 - under review). *STEM Teacher Leadership in Policy* in C. Johnson, M. Mohr-Schroeder, T. Moore & L. English (Eds.), Handbook of Research on STEM Education (pp. XX-XX). London, UK: Routledge/Taylor & Francis.

Vieyra, R. (2018). "Teaching students metacognition through discipline-based research and technology" in *Best practices in STEM education: Innovative approaches from Einstein Fellow alumni, 2nd Ed.* Peter Lang, Inc.

Reports

Vieyra, R. [Editor]. & AAPT Physics Master Teacher Leader Task Force. (June 2017). *Aspiring to lead: Engaging K-12 teachers as agents of national change in physics education.* http://aapt.org/K12/Aspiring_to_Lead.cfm

Vieyra. R. (9 January 2016). *Physics and 21st Century Science Standards: The Role of Physics in the NGSS*. http://aapt.org/K12/NGSS/index.html

Peer-Reviewed Journals

Bundy, B., Dahl, J., Guiñals-Kupperman, S., Hengesbach, J., Martino, K., Metzler, J., Smith, J. F. "Trey", Vargas, M., Vieyra, R., & Whitehurst, A. (2019). Physics teacher leaders influencing science education policy. *The Physics Teacher, 58*(3), 210-213.

Megowan-Romanowicz, C.; **Vieyra, R.**; Fisler, K.; Gibbs Politz, J.; Krishnamurthi, S.; Lerner, B.; Li, Y.; & Helding, B. (submitted December 2018 - pending review). Constructing programs to build teacher confidence and competence and push disciplinary boundaries. *Association for Science Teacher Education.*

Vieyra, R.; Vieyra, C.; Xu, B. (submitted November 2018 - under review). Meeting the challenge with mobile digital data. *The Science Teacher.*

Vieyra, R.; Fisler, K.; Megowan-Romanowicz, C.; Lerner, B. S.; Gibbs Politz, J.; Krishnamurthi, S.; & Rutberg, J. (submitted July 2018 - under review). Using physics as a context for teaching computational modeling. *Journal of Science Education and Technology.*

Lopez, R. E.; Ambrose, B. S.; Bailey, J. M.; Cid, X.; **Vieyra, R.**; & Willoughby, S. D. (April 2017). Connecting undergraduate instruction to the 2017 solar eclipse. *The Physics Teacher*. Vol. 55,

no. 4, pp. 250-251.

Vieyra, R.; Stefano, M.; & Vieyra, C. (February 2017). Kitchen physics. *The Physics Teacher.*

Macchia, S. & **Vieyra, R.** (7 December 2016). A simple wind tunnel to analyze Bernoulli's principle. *Physics Education, 52,* 1.

Genz, F. & **Vieyra, R.** (2016). Evaluating the use of flight simulators for the NASA/AAPT "Aeronautics for Introductory Physics" educator guide. *Selected papers from the 20th international conference on multimedia in physics teaching and learning,* pp. 139-148.

Vieyra, R., Vieyra, C., Jeanjacquot, P., Marti, A., & Monteiro, M. (December 2015). Turn your mobile device into a science laboratory space. *The Science Teacher, 82*, 9, 32-40.

Vieyra, R., Edwards, T., Rowe, E., Asbell-Clarke, J. (Summer 2015). Playing with Science. *The Science Teacher, 82,* 5, 51-59.

Vieyra, R.; Spaete, D.; Han Soh, J.; & Thompson, A. (January 2015). Why you need [to be] a mentor. *The Physics Teacher, 53,* 1, 2-3.

Vieyra, R. & Vieyra C. (March 2014). Analyzing forces on amusement park rides with mobile devices. *The Physics Teacher, 52,* 3, 149-151.

Wenning Vieyra, R. (September 2010), Materials mayhem. *The Science Teacher*, *77,*6, 67-70.

Wenning-Vieyra, R. (Spring 2008). Guidelines and methods for high school teachers for encouraging women in science, technology, engineering, and mathematics. *Journal of Physics Teacher Education Online, 4*, 4, 7-12.

Wenning, C. & **Wenning, R.** (March 2006). A generic model for inquiry-oriented labs in postsecondary introductory physics. *Journal of Physics Teacher Education Online, 3,* 3, 24-28.

Wenning, R.; Su, Q.; & Grobe, R. (September 2005). Optical characteristics of a turbid medium between two mirrors. *Laser Physics*, *16*, 4, 631-638.

Non-Peer-Reviewed Journals

Wenning, R. (October 2004). Honeybees in symbolism. *American Bee Journal.*

Wenning, R. (May 2004). Swarming throughout history. *American Bee Journal.*

NASA Digital Resources

Vieyra, R.; Springer, T.; Rugg, K.; Gipson, L.; Carzoli, T.; & Drinka, J. (April 2015). NASA's Educator Resource Guide for *Living in the Age of Airplanes*, NASA Aeronautics Research Mission Directorate, #EG-2015--03-003-HQ. http://goo.gl/UVMIGH

Vieyra, R.; Springer, T.; Gipson, L.; Schultz, J.; & Carzoli, T. (April 2015). Aeronautics for Pre-K. *NASA Aeronautics Research Mission Directorate,* #EG-2015--03-004-HQ. https://www.nasa.gov/aeroresearch/resources/k-12/aero-for-prek

Vieyra, R.; Springer, T.; & Gipson, L. (August 2015). Aeronautics for introductory physics.

NASA Aeronautics Research Mission Directorate, #EG-2015--03-005-HQ. https://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Aeronautics_for_Introductory_Physics/

Mobile Applications

Vieyra, C. & **Vieyra, R.** All apps can be found on the Google Play Store or Apple App Store. 1 million+ downloads; 660,000+ monthly users.

Physics Toolbox Sensor Suite Pro, Physics Toolbox Sensor Suite, Physics Toolbox Play, Physics Toolbox Accelerometer, Physics Toolbox Magnetometer, Physics Toolbox Light Sensor, Physics Toolbox Gyroscope, Physics Toolbox Tone Generator, Physics Toolbox Sound Meter, Physics Toolbox Hygrometer, Physics Toolbox Barometer, Physics Toolbox Roller Coaster, Physics Toolbox Thermometer, Physics Toolbox Proximity Sensor, Physics Toolbox Wear, Physics Toolbox Orientation, Physics Toolbox Color Gen, Physics Toolbox UV, Physics Toolbox Ruler.

PRESENTATIONS & WORKSHOPS GIVEN

International

Vieyra, R. "Smartphones for Science Teaching." MOOC. (Italy - webinar, 3/10/2018). **INVITED**

Vieyra, R. "Pedagogical Considerations for the Use of Smartphones in Physics Teaching." AAPT-MX Conference. Plenary. (San Luis Potosi, Mexico, 11/16-17/2017). **INVITED**

Vieyra, R. "Smartphones for Physics Teaching." AAPT-MX Conference. (San Luis Potosi, Mexico, 11/16-17/2017). Workshop. **INVITED**

Vieyra, R. "Turn Your Mobile Device into a Laboratory Space." Scienza della Citta / Italian Physics Teachers Association. (Naples, Italy, 9/12/2015). **INVITED**

Bresges, A., Genz, F., & **Vieyra, R.** "Analyzing Flight Simulators and the AAPT/NASA Aeronautics for Introductory Physics Guide." Multimedia in Physics Teaching and Learning. (Munich, Germany, 9/9-11/2015).

Wenning, C. & **Vieyra, R.** "Nature of Science General Seminar." Universitas Pendidikan Indonesia (Bandung, Indonesia, 6/10/2014), and Universitas Negeri Sebelas Maret (Solo/Surakarta, Indonesia, 6/16/2014). **INVITED**

Wenning, C. & **Vieyra, R.** "Modeling Method Instruction: Energy," 5 hr. **workshop leader.** Universitas Pendidikan Indonesia (30 participants, Bandung, Indonesia, 6/10-11/2015), and Universitas Negeri Sebelas Maret (Solo/Surakarta, Indonesia, 6/16/2014). **INVITED**

Wenning, C. & **Vieyra, R.** "Nature of Science Workshop," 2 hr. **workshop leader**. Universitas Pendidikan Indonesia (40 participants, Bandung, Indonesia, 6/12/2015) and Universitas Negeri Sebelas Maret (Solo/Surakarta, Indonesia, 6/15//2014). **INVITED**

Vieyra, R. "Space Science Education Workshop," 3 day **workshop leader**. QTIP Science of SouthEast Asian Ministry of Education Organization (30 participants, Bogor, Indonesia, 6/18-

20/2014). **INVITED**

Wenning, C. & **Vieyra, R.** "Inquiry in Physics: Modeling Method of Instruction in Physics." Universidad Autónoma de Puebla Physics Teacher Conference, Puebla, Mexico, three 90-min presentations, New Approaches for Physics Education International Conference (Puebla, Mexico, 5/27,28,29/05) **INVITED**

National

Vieyra, R.; Megowan Romanowicz, C.; Fisler, K.; Lerner, B.; Gibbs Politz, J. & Krishnamurthi, S. "Helping 9th grade physics students construct computational models" presented in the symposium panel "Disentangling coding in secondary school science: Contexts, interfaces, and assessments." National Association for Research in Science Teaching. (Baltimore, MD, April 2019).

Vieyra, R.; Megowan Romanowicz, C.; Fisler, K.; Lerner, B.; Gibbs Politz, J.; & Krishnamurthi, S. "Computational modeling in physics first." American Association of Physics Teachers Winter Meeting 2019. (Houston, TX, 14 January 2019).

Megowan Romanowicz, C.; **Vieyra, R.**; Fisler, K.; Gibbs Politz, J.; Krishnamurthi, S.; Lerner, B. "Constructing programs to build teacher confidence and competence in physics and computing." Association for Science Teacher Education exploratory session. (Savanna, GA, 5 January 2019).

Vieyra, R.; Megowan Romanowicz, C.; Fisler, K.; Gibbs Politz, J.; Lerner, B.; & Krishnamurthi, S. "What is the goal of introducing computation into high school physics and physical science?" Physics Education Research Conference. (Washington, DC, 2 August 2018).

Vieyra, R., Vieyra, C., & Hogan, D. "Smartphones as Global Lab Tools: Experiences across Europe, Africa, and the Americas." National Science Teachers Association Global Conversation Poster and Share-a-thon workshop. (Atlanta, GA, 16 March 2018).

Vieyra, R. & Thesenga, D. "AAPT & NESTA: Integrating Earth and Space Science into Physics and Physical Science." National Science Teachers Association. (Atlanta, GA, 17 March 2018).

Megowan Romanowicz, C.; **Vieyra, R.;** Rutberg, J.; & Martino, K. "Computational modeling for STEM+C literacy in a physics context." American Association of Physics Teachers Winter Meeting. (San Diego, CA, 9 January 2019).

Vieyra, R., & Vieyra, C. "Mobile Apps and Sensors for STEM Teaching." Serious Play Conference. Manassas, VA. Workshop (Manassas, VA, 20 July 2017). **INVITED**

Vieyra, R., Schanzer, E., Krishnamurthi, S., Megowan Romanowicz, C., Gibbs-Politz, J., Lerner, B., & Fisler, K. "CS for All and physics for All: Integrating Bootstrap Computational Modeling into Physics." Computer Science Teachers Association (Baltimore, MD, 11 July 2017).

Megowan Romanowicz, C., & **Vieyra, R.** "Integrating Programming into Modeling for Physics First" Poster, AAPT (Atlanta, GA, 20 February 2017).

Lopez, R. E., Ambrose, B. S., Bailey, J. M., Cid, X., **Vieyra, R.**, & Willoughby, S. D. "AER and

PER Resources from the NASA Heliophysics Education Consortium" Poster, AAPT (Atlanta, GA, 20 February 2017).

Lopez, R. E., Ambrose, B. S., Bailey, J. M., Cid, X., **Vieyra, R.,** & Willoughby, S. D. "Bring the 2017 Solar Eclipse into your Class!" Topical Discussion, AAPT (Atlanta, GA, 20 February 2017).

Marti, A., Monteiro, M., Vieyra, C., & **Vieyra, R.** "Everything You Wanted to Know about Using Smartphones in Your Classroom," Workshop, AAPT (Atlanta, GA, 18 February 2017).

Vieyra, R, Marti, A., Monteiro, M., & Vieyra, C. "Five Smartphone Physics Lessons for Teaching NGSS' DCI Forces and Motion," AAPT (Sacramento, CA, 19 July 2016).

Vieyra, R. & Vieyra, C. "Smartphone and Tablet Physics: Unanswered Questions in Educational Technology," AAPT (Sacramento, CA, 19 July 2016).

Wright, S. & **Vieyra, R.** "OSA K-8 Workshop: Light and Color," a full day outreach workshop for the OSA Foundation at the AAPT Summer 2016 meeting. (Sacramento, CA, 17 July 2016).

Vieyra, R. & Vieyra, C. "Smartphones as Tricorders," webinar for International Society of Technology Education Mobile Learning Network Mobile Mondays Mini-Conference, http://bit.ly/1hOQj4c **INVITED**

Vieyra, R. & Vieyra, C. "Mobile Sensor Apps for Learning: Turn your mobile device into a lab space," presentation and topic table leader, International Society for Technology Education, (Philadelphia, PA, 30 June, 2015) **INVITED**

Vieyra, R. & Genz, F. "NASA Aeronautics for Introductory Physics" presentation, American Association of Physics Teachers national conference, (College Park, MD, July 2015)

Vieyra, R. & Vieyra, C. "Turn Your Mobile Device into a Lab Space" poster, American Association of Physics Teachers national conference, (College Park, MD, July 2015)

Vieyra, R. & Vieyra, C. "Free Mobile Sensor Apps for Data Collection and Analysis," National Science Teachers Association national conference, (Chicago, IL, March, 2015)

Vieyra, R. & Vieyra, C. "Free Mobile Sensor Apps for Data Collection and Analysis," AAPT (San Diego, CA, January 5, 2015).

Vieyra, R. "Inspiring Ideas: Mobile Devices Apps for Learning," Google Teacher Academy, (Austin, TX, December 2014). **INVITED**

Vieyra, R. "Diagnoser.com as a Tool in Modeling Instruction" poster, AAPT and AAAS national conferences, (Chicago, IL, Spring 2009)

Vieyra, R. "Integrating Math and Science through Inquiry," 1 hr. **workshop leader**, National Science Teacher Association, National Conference (Anaheim, CA, Spring 2006)

Vieyra, R. "Optical Characteristics of a Turbid Medium between Two Mirrors," American Physical Science Division of Atomic and Molecular Physics national conference (Lincoln, NE, 19 May, 2005). **INVITED**

Vieyra, R. "Inquiry GK12 Fellows in the Classroom," 1 hr. **workshop leader**, National Science Teacher Association, Northwestern Area Conference, (Seattle, WA, Fall 2004)

State

Northern California/Nevada Section of the American Association of Physics Teachers
"Turn your mobile device into a laboratory space." (Nevada, August 22, 2015).

Physics Teaching Resource Agent Program
"Teacher Education for the Advancement of Mathematics and Science: Electricity and Magnetism" for K-8 teachers. Math Science Partnership-funded grant, University of West Georgia, (Carrollton, GA, June 16-24, 2015).

Illinois Section of the American Association of Physics Teachers
"Examining the Data: Career Pathways for Physics Majors" & "Smartphone Science with Free Physics Toolbox Apps" Workshop, (Fall 2016), "Free Mobile Device Apps for Data Collection and Analysis," (Spring 2014), "Teaching High School Physics - "PAEMST Sharing Session" and "Delphi Review Process," (Fall 2013), "Gaming in the Physics Classroom" and "Using Learning Targets to Enhance Metacognition," (Fall 2012), "Creative Physics Homework," (Fall 2011), "Electrostatics with Ben Franklin" 1.5 hr. **workshop leader**, (Fall 2009), "Math of Music" and "Shocking Optics of Disposable Cameras," (Fall 2008), "Speed of Light with Butter," (Spring 2008), "Barbie Bungee Jumping," (Fall 2007), "NSF PRISM Grant: University-High School Physics Inquiry Resources," (Fall 2005), "Transmission of a Turbid Medium between Two Mirrors," (Spring 2005).

Argonne National Laboratory Student Symposium
"Optical Characteristics of a Turbid Medium between Two Mirrors," (Fall 2004).

Illinois State University Expanding Your Horizons for Girls in Math, Science, and Technology
INVITED "The Crow and the Pitcher," Keynote speech, (Normal, IL, 3/20/10)

MAJOR MEDIA APPEARANCES / FEATURES

2017	*IIT Magazine*, "From g-Force to V-Force," https://magazine.iit.edu/sites/magazine/files/field_uploads/issue/pdfs/spring-2017.pdf (1 March 2017).
2015	*BBC World News TV,* "Business Insider," (25 November 2015).
2015	*BBC World News Radio,* "100 Years of Relativity: Why does Einstein's theory still stand?," http://www.bbc.co.uk/programmes/p0394y9r, (24 November 2015).
2015	*U.S. News: Education,* "High School Teachers Can Help Teens Soar With Aviation, Aerospace," https://www.usnews.com/education/blogs/high-school-notes/2015/05/25/high-school-teachers-can-help-teens-soar-with-aviation-aerospace
2014	*SEMAR TV Indonesia*, "Seminar Nasional dan Workshop Pendidikan Sains FKIP UNS" https://www.youtube.com/watch?v=Oyq9FC0epRI

GRADUATE COURSES TAUGHT

2017-2018	**Physics for Real Beginners**, NASA Endeavor STEM Master Teaching Certificate Program
2016-2017	**Physical Science in Motion**, NASA Endeavor STEM Master Teaching Certificate Program
2014-2015	**Google Apps I,** IL District 155 In-House Graduate Credit using Google Classroom platform, Crystal Lake District 155, Crystal Lake, IL
2009	**Physical Science for Middle School Teachers,** PHY 489.01, Illinois State University

AWARDS, FELLOWSHIPS, SCHOLARSHIPS

2018	University of Maryland Dean's Fellowship
2017	Illinois State University Outstanding Young Alumni Award
2014	Albert Einstein Distinguished Educator Fellowship, placed at NASA HQ
2013	Presidential Award for Excellence in Math and Science Teaching
2011	National Board Teacher Certification, Adult/Young Adult, Science - Physics
2011	Illinois Science Teacher Association New Teacher of the Year
2009	National Science Teacher Association New Teacher Academy Fellow
2006	Robert G. Bone Scholar, top 14 of graduating class at Ill. State Uni.
2006	Laurine E. Reiske Scholarship, C.A.S., Illinois State University
2006	Delta Kappa Gamma In-State Grant Aid Scholarship for Teachers
2005	Barbara Lotze Scholarship for Future Teachers, Am. Assn. of Physics Teachers
2005	Undergraduate Research Award, American Physical Society, Division of Atomic, Molecular, and Optical Physics
2003	Girl Scout Gold Award
2003	4-H Legacy of Leadership Scholar and National Conference Delegate

PROFESSIONAL AFFILIATIONS (selected)

2019-Present	National Association for Research in Science Teaching
2014-Present	American Modeling Teachers Association

2005-Present	American Association of Physics Teachers
2003-Present	National Science Teachers Association
1992-Present	Girl Scouts of the U.S.A. (lifetime member)
2016-2018	The Optical Society
2015-2018	Association for Presidential Awardees in Science Teaching
2015-2016	International Society for Technology Education
2014-2015	International Technology and Engineering Educators Association
2014-2015	Civil Air Patrol Educator Member
2013-2014	ASM International
2007-2014	National Educators Association
2007-2014	Illinois Educators Association
2005-2014	Illinois Section of the American Association of Physics Teachers
2008-2010	Chicago Section of the American Association of Physics Teachers
2008-2010	Physics Northwest
2006-2007	Alpha Lambda Delta
2006-2007	Red Tassel Mortar Board
2003-2004	Illinois State University section of the National Science Teachers Assn.
2003-2004	Illinois State University Rotaract (branch of Rotary International)
1996-2003	4-H of America

CERTIFICATIONS, TRAININGS

2018	Result-Based Program Design, Department of Planning and Evaluation, OAS
2011-2021	National Board Teacher Certification, Adolescent/Young Adult Science-Physics
2011-2021	Illinois Master Teaching Licence, Science, grades 9-12
2014-Present	Google Certified Innovator
2014-2015	Google Education Trainer
2014-2015	Google Educator

2013	ASM Materials Science Workshop, 1 week
2011	Physics Teaching Resource Agent Training, 1 week
2007	Modeling Method of Instruction, Mechanics I
2007	Project Lead the Way Principles of Engineering

FOREIGN LANGUAGES

Spanish	Near fluency (spoken frequently at home) *Berlitz Common Framework Score: Speaking-C1, Writing-C1*
French	Excellent reading, moderate writing, speaking, and listening
Italian	Excellent reading, moderate listening

VOLUNTEER EXPERIENCE

2018	**Reviewer**, *American Journal of Physics*, American Association of Physics Teachers
2016-Present	**Collections Counter**, St. Peter's Catholic Church on Capitol Hill. Washington, DC
2014	**Reviewer**, *The Physics Teacher,* American Association of Physics Teachers
20120	**National Board for Teacher Certification Mentor**, Illinois
2009-2013	**Big Brothers Big Sisters Mentor**, Big Brothers Big Sisters of McHenry County, McHenry, IL
2003-2006	**Editor**, Twin City Amateur Astronomers' newsletter, Normal, IL
2003-2004	**Founder & President**, Illinois State University chapter of the National Science Teachers Association, Normal, IL
2003-2004	**Founder & President**, Illinois State University chapter of Rotaract, Normal, IL
2000-2007	**Lector & Catholic Catechesis Teacher**, Historic St. Patrick's Church, Bloomington, IL

COLLABORATORS (last five years: 2014-2019)
Bradley Ambrose, Grand Valley State University; **Jodi Asbell-Clark**, EdGE at TERC; **Janelle Bailey**, Temple University; **Heidi Baumgartner Komkov**, University of Maryland; **Ximena Cid**, California State university at Dominguez Hills; **Remy Dou**, Florida International University; **Florian Genz**, Cologne University (Germany); **Andre Bresges**, Cologne University (Germany); **Ximena Cid**, California State University at Dominguez Hills; **Beth Cunningham**, American

Association of Physics Teachers; **Remy Dou**, Florida International University; **Teon Edwards**, EdGE at TERC; **Kathi Fisler**, Brown University; **Kyle Forinash**, Indiana University Southeast, retired; **Florian Genz**, Cologne University; **Rainer Grobe**, Illinois State University; **Zahra Hazari**, Florida International University; **Robert Hilborn**, American Association of Physics Teachers; **Rebecca Hite**, Texas Tech; **Theodore Hodapp**, American Physical Society; **Philippe Jeanjacquot,** French Institute of Education (France); **Leigh Jenkins**, Berkeley Springs High School, West Virginia; **Mina Johnson**, Arizona State University; **Raina Khatri**, Florida International University; **Laird Kramer**, Florida International University; **Shriram Krishnamurthi**, Brown University; **Robin Lock**, Texas A&M-Commerce; **Ramon Lopez**, University of Texas at Austin; **Stefano Macchia**, G. Arpino secondary school of Sommariva del Bosco / University of Genoa and Milano (Italy); **Arturo Marti**, Universidad ORT Uruguay (Uruguay); **Colleen Megowan Romanowicz**, American Modeling Teachers Association; **Jeff Milbourne**, Independent Consultant; **Martin Monteiro**, Universidad de la Republica (Uruguay); **Geoff Potvin**, Florida International University; **Diana Price**, Alexandria Public Library; **Elizabeth Rowe**, EdGE at TERC; **Terrie Rust**, retired; **Jing Han Soh**, AAPT eMentee; **John (Trey) Smith**, Northwestern University; **Danielle Spaete**, AAPT eMentoring Coordinator; **Tony Springer**, National Aeronautics and Space Administration ARMD; **Tim Spuck**, Associated Universities, Inc.; **Qichang Charles Su**, Illinois State University; **Al Thompson**, AAPT eMentoring Coordinator; **Chrystian Vieyra**, Vieyra Software; **Carl Wenning**, Illinois State University; **Shannon Willoughby**, Montana State University.

Stamatis Vokos (California State Polytechnic University – San Luis Obispo)

Biography

Vokos is a Professor of Physics at Cal Poly, where he also directs the STEM Teacher and Researcher (STAR) Program. He received his Ph.D. in theoretical physics at UC Berkeley and conducted postdoctoral research in high energy theory at Argonne National Lab and the University of Washington, where he discovered the world of physics education research (PER) and realized that PER was his true calling. From 1995 until he joined Seattle Pacific University in 2002, he contributed extensively to the research and curriculum development efforts of the Physics Education Group at the University of Washington, notably *Physics by Inquiry,* an inquiry-based curriculum for the preparation of teachers and *Tutorials in Introductory Physics,* a supplementary curriculum for the introductory physics course. He played a leadership role in the research that extends the use of *Tutorials* in advanced courses, especially in relativity and quantum mechanics.

In the last 20+ years he has directed several projects on the learning and teaching of physics and has contributed to local and national science reform efforts in grades K-20, leading teacher education and enhancement programs in Washington State in which nearly two thousand preservice and inservice educators have participated.

Vokos has helped organize two Gordon Conferences on Physics Research and Education (2004-classical mechanics; 2006-E&M) and has served as co-editor for Theme Issues of the American Journal of Physics. He was member and two-term chair of the AAPT Committee on Research in Physics Education, member of the AAPT Committee on Graduate Education, and chair of the AAPT Physics Education Research Elections Organizing Committee. Vokos served as chair of the National Task Force on Teacher Education in Physics, which was sponsored by the American Physical Society, the American Association of Physics Teachers, and the American Institute of Physics, and vice-chair of the AAPT Teacher Preparation Committee.