Dr. Rommel J. Miranda
Towson University
Department of Physics, Astronomy & Geosciences
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EDUCATION:

2006	Doctor of Education, Science Education Morgan State University
1999	Master of Education, Curriculum & Instruction Loyola University Maryland
1996	Bachelor of Science, Biology Loyola University Maryland

HONORS, AWARDS & SPECIAL RECOGNITION:

2023	The Association for Science Teacher Education (ASTE) Honors (In recognition for leadership as ASTE President)
2022	The Association for Science Teacher Education (ASTE) Presidential Gavel
2021	The Association for Science Teacher Education Honors (In recognition for leadership as Innovations in Science Teacher Education Editor)
2020	The Association for Science Teacher Education Honors (In recognition for leadership as ASTE Board Member)
2018	The Association for Science Teacher Education Honors (In recognition for leadership as co-conference chairperson for the international conference in Baltimore, Maryland)
2017	Fisher College of Science and Mathematics Service Award, Towson University
2017	The Association for Science Teacher Education Honors (In recognition for leadership as ASTE Newsletter Editor)
2016	University System of Maryland Board of Regents' Award for Excellence in Teaching
2014	Outstanding Alumni Award (For exceptional contributions to the field of science education), Founder's Day Convocation, Morgan State University
2012	Fisher College of Science & Mathematics Business and Community Outreach Award, Towson University
2011	Fisher College of Science & Mathematics Excellence in Teaching Award, Towson University
2009	Towson University Nominee for the Thomas Ehrlich Civically Engaged Faculty Award
2008	Certificate of Appreciation, Columbia Union College
2008	Elected Member of Sigma Pi Sigma (National Physics Honor Society)
2007	Disability Support Services Effectiveness in Teaching Award, Towson University
2006	Doctoral Dissertation of the Year, Morgan State University

2004	Teacher of the Year, Beth Tfiloh Dahan Community School
2002 - 2003	Distinguished Title III Science Education Fellowship ($25,937)
2001 - 2004	Morgan State University Science Education Department Stipend ($9,000)
2001	Decosta Mathematics & Science Education Scholarship ($2,232)

PROFESSIONAL EXPERIENCE:

June 2018 – Present	Professor of Science Education; Towson University
June 2013 – May 2018	Associate Professor of Science Education; Towson University
August 2007 – May 2013	Assistant Professor of Science Education; Towson University
August 2006 – June 2007	Lecturer of Science Education; Towson University
January 2006 – August 2006	Adjunct Professor of Science Education; Towson University
August 2005 – June 2007	Director of ECE and ELED Student Internship Program; Adjunct Professor; Washington Adventist University
August 2002 - June 2005	Teacher: Beth Tfiloh Dahan Community School Courses: Physics, Algebra II, Honors Biology, Anatomy & Physiology
August 2000 - June 2001	Teacher: The McDonogh School Courses: Physics, Chemistry, Biology
August 1999 - June 2000	Teacher: Patterson High School; Baltimore City Public Schools System Courses: Physics, Chemistry, Anatomy & Physiology
August 1998 - June 1999	1:1 / Teacher Assistant: Hannah More School (MANSEF School)

DOCTORAL DISSERTATION:

Miranda, R.J. (2006). Highly qualified does not equal high quality: A study of urban stakeholders' perceptions of high quality in science teaching. (Doctoral dissertation, Morgan State University, 2006). Dissertation Abstracts International. (Dissertation Chair: Dr. Glenda Prime).

JOURNAL PUBLICATIONS (PEER-REVIEWED):

Miranda, R.J., Hermann, R.S., Hurley, K.P., Williams, A., Nelson, W., & Moore, J. (Submitted). Factors that influence the recruitment and retention of undergraduate geoscience majors. *Journal of Geoscience Education*.

Miranda, R.J., Warren, C., McDougal, K., Kimble, S., Sanchez, J., Norman, L., Anderson, V., Hemm, M. (Minor revisions). Identifying new small proteins through a molecular biology course-based undergraduate research experience laboratory class. *Biochemistry and Molecular Biology Education*.

Miranda, R.J. (2021)**.** Recommendations for course-based undergraduate research experiences in mathematics. *The Mathematics Enthusiast, 19*(3), 702-715.

Miranda, R.J., Hermann, R.S., Hurley, K.P., & Moore, J. (2021). Motivations and Challenges for Pursuing Geoscience Majors at a Public University. *Journal of Geoscience Education, 69*(3), 300-312.

*Kosa, K., & **Miranda, R.J.** (2020). Exploring acceleration: A dive into newton's second law of motion. *Science Scope*, 44, 70-76.

Sandifer, C., Lottero-Perdue, P., & **Miranda, R.J.** (2020). A 20-year journey in elementary and early childhood science and engineering education: An iterative cycle of reflection, refinement, and redesign. *Innovations in Science Teacher Education, 5*(4), 1-20.

Thompson, C., Sanchez, J., Smith, M., Costello, J., Madabushi, A., Schuh-Nuhfer, **Miranda, R.J.**, Gaines, B., Kennedy, K., Tangrea, M., & Rivers, D. (2018). Improving undergraduate life science education for the biosciences workforce: Overcoming the disconnect between educators and industry. *Cell Biology Education – Life Sciences Education, 17*(3), es12.

Miranda, R.J., Scott, J.E., & Schaefer, K.G. (2018). Characteristics of effective astronomer-educator partnerships in formal urban middle school classrooms. *Physical Review Physics Education Research, 14*(1), 010147.

Lottero-Perdue, P.S., Haines, S., Bamberger, H., **Miranda, R.J.** (2018). An innovation integrated STEM program for elementary teachers. *Innovations in Science Teacher Education, 3*(2), 1-20.

Miranda, R.J., Kruse, B., & Hermann, R.S. (2016). Exploring lunar and solar eclipses via a 3D modeling design task. *Science Scope, 40*(2), *30-38.*

Miranda, R.J., & Hermann, R.S. (2015). Integrating continuous formative assessment into inquiry-based classroom instruction. *Science and Children, 53(1),* 17-25.

Miranda, R.J., & Damico, J.B. (2015). Changes in teachers' beliefs and classroom practices concerning inquiry-based instruction following a year-long RET-PLC program. *Science Educator, 24(1)*, 23-35.

Miranda, R.J., & Van der Veen, W. (2014). Project ASTRO: Evolving to remain relevant. *Mercury, 43(2),* 33-39.

Miranda, R.J., & Damico, J.B. (2013). Science Teachers' Beliefs about the Influence of their Summer Research Experiences on their Pedagogical Practices. *Journal of Science Teacher Education, 24,* 1241-1261.

Hermann, R.S., & **Miranda, R.J.** (2013). From cars to creatures: Converting analogies into student-centered activities. *The Science Teacher, 80(7),* 51-55.

Miranda, R.J., & Hermann, R.S. (2013) Integrating science and engineering practices in an inquiry-based lesson on wind-powered cars. *Science Scope, 36(6),* 24-30.

Hermann, R.S., & **Miranda, R.J.** (2013). The stratigraphic sandwich. An inquiry-based lesson on geologic principles. *The Science Teacher, 80*(*4*), 33-37.

Cartwright, T., **Miranda, R.J.**, Hermann, R.S., & Hemler, D. (2012). Clear skies ahead: Clearing up confusion on clouds. *Science Scope, 36(4),* 61-67.

Miranda, R.J. (2012). Urban high school teachers' beliefs of essential science teaching dispositions. *Science Educator, 21,* 44-50.

Miranda, R.J., & Hermann, R.S. (2012). An integrated instructional approach to facilitate inquiry in the classroom. *Science Scope, 35,* 66-72.

Miranda, R.J. (2012). Urban middle-school science teachers' beliefs about the influence of their Astronomer-Educator Partnerships on students' astronomy learner characteristics. *Astronomy Education Review, 11(1),* 010101-1.

Miranda, R.J. (2010). Urban middle school teachers' beliefs about science learner characteristics: Implications for astronomy curriculum. *Astronomy Education Review*, *9(1),* 010117-1.

Hermann, R.S., & **Miranda, R.J.** (2010). A template for open inquiry: Using questions to encourage and support inquiry in Earth and space science. *The Science Teacher, 77,* 26-30.

Miranda, R.J., & Hermann, R.S. (2010). A critical analysis of faculty-developed science outreach programs targeting K-12 students and teachers in urban school settings. *Perspectives on Urban Education, 7,*109-114*.*

Hermann, R.S., & **Miranda, R.J.** (2010). Presto: Open inquiry. *Science Scope, 33,* 62-69.

Prime, G., & **Miranda, R.J.** (2006). Urban public high school teachers' beliefs about science learner characteristics: Implications for curriculum. *Urban Education, 41*, 506-532.

PRESIDENTIAL MESSAGE PUBLICATIONS:

Miranda, R.J. (2022, Autumn) President's message. *ASTE Newsletter*, 57(1). https://newsletter.theaste.org/2022/11/06/presidential-message-for-autumn-2022/

Miranda, R.J. (2022, Summer) President's message. *ASTE Newsletter*, 56(4). https://newsletter.theaste.org/2022/02/24/presidents-message/

Miranda, R.J. (2022, Spring) President's message. *ASTE Newsletter*, 56(3). https://newsletter.theaste.org/2022/06/04/presidential-message-for-spring-2022/

Miranda, R.J. (2022 Winter) President's message. *ASTE Newsletter*, 56(2). https://newsletter.theaste.org/2022/02/24/presidents-message/

EDITORIAL PUBLICATIONS:

Hermann, R.S., & **Miranda, R.J.** (October, 2020). Editorial: With every 'goodbye' comes a new 'hello'! *Innovations in Science Teacher Education, 5*(4). https://innovations.theaste.org/goodbye-hello-editorial/

Miranda, R.J., & Hermann, R.S. (July, 2020). Editorial: Innovative social justice. *Innovations in Science Teacher Education, 5*(3). https://innovations.theaste.org/innovative-social-justice/

Hermann, R.S., & **Miranda, R.J.** (April, 2020). Editorial: Is innovations a predatory journal? *Innovations in Science Teacher Education, 5*(2). https://innovations.theaste.org/is-innovations-a-predatory-journal/

Miranda, R.J., & Hermann, R.S. (January, 2020). Editorial: Preparation of teachers of science for English language learners. *Innovations in Science Teacher Education, 5*(1). https://innovations.theaste.org/preparation-of-teachers-of-science-for-english-language-learners/

Hermann, R.S., & **Miranda, R.J.** (October, 2019). Editorial: Innovative clinical field experiences for teachers of science. *Innovations in Science Teacher Education, 4*(4). https://innovations.theaste.org/innovative-clinical-field-experiences-for-teachers-of-science/

Miranda, R.J., & Hermann, R.S. (July, 2019). Editorial: Preparation of teachers of science for laboratory experiences. *Innovations in Science Teacher Education, 4*(3). https://innovations.theaste.org/preparation-of-teachers-of-science-for-laboratory-safety/

Hermann, R.S., & **Miranda, R.J.** (April, 2019). Editorial: Where have all the science teacher candidate gone? *Innovations in Science Teacher Education, 4*(2). https://innovations.theaste.org/where-have-all-the-science-teacher-candidates-gone/

Miranda, R.J., & Hermann, R.S. (January, 2019). Editorial: Innovative environmental and sustainability science teacher education. *Innovations in Science Teacher Education, 4*(1). https://innovations.theaste.org/innovative-environmental-and-sustainability-science-teacher-education/

Hermann, R.S., & **Miranda, R.J.** (October, 2018). Editorial: What's in a name: Science teachers or teachers of science? *Innovations in Science Teacher Education, 3*(4). https://innovations.theaste.org/whats-in-a-name-science-teachers-or-teachers-of-science/

Miranda, R.J., & Hermann, R.S. (July, 2018). Editorial: Innovative inclusive science teacher education. *Innovations in Science Teacher Education, 3*(3). https://innovations.theaste.org/innovative-inclusive-science-teacher-education/

Hermann, R.S., & **Miranda, R.J.** (April, 2018). Editorial: Writing for practitioner journals as reflective practice. *Innovations in Science Teacher Education, 3*(2). http://innovations.theaste.org/writing-for-practitioner-journals-as-reflective-practice/

Miranda, R.J., & Hermann, R.S. (January, 2018). Editorial: Innovative science teacher professional development. *Innovations in Science Teacher Education, 3*(1). http://innovations.theaste.org/innovative-science-teacher-professional-development/

Hermann, R.S., & **Miranda, R.J.** (October, 2017). Editorial: The toolbox and the master craftsmen. *Innovations in Science Teacher Education, 2*(4). http://innovations.theaste.org/the-toolbox-and-the-master-craftsmen/

Miranda, R.J., & Hermann, R.S. (July, 2017). Innovative praxis. *Innovations in Science Teacher Education, 2*(3). http://innovations.theaste.org/editorial-innovative-praxis/

Hermann, R.S., & **Miranda, R.J.** (April, 2017). Peer review and the practitioner jounal. *Innovations in Science Teacher Education, 2*(2). http://innovations.theaste.org/peer-review-and-the-practitioner-journal/.

Miranda, R.J., & Hermann, R.S. (January, 2017). Completely blinding an online innovations manuscript submission. *Innovations in Science Teacher Education, 2*(1). http://innovations.theaste.org/completely-blinding-an-online-innovations-manuscript-submission/.

Hermann, R.S., & **Miranda, R.J.** (October, 2016). On the importance of practitioner journals. *Innovations in Science Teacher Education, 1*(2). http://innovations.theaste.org/editorial-on-the-importance-of-practitioner-journals/.

Miranda, R.J., & Hermann, R.S. (July, 2016). What is innovation? *Innovations in Science Teacher Education, 1*(1). http://innovations.theaste.org/editorial-what-is-innovation/.

TEXTBOOK PUBLICATIONS:

Prime, G., & **Miranda, R.J.** (2008). Urban public high school teachers' beliefs about science learner characteristics: Implications for curriculum. In B.S. Stern & M.L. Kysilka (Eds.), *Contemporary readings in curriculum.* Thousand Oaks, CA: Sage.

CONFERENCE PAPER PRESENTATIONS (PEER-REVIEWED); PUBLISHED ABSTRACTS:

Gough, L., Hemm, M., Jara, B. & **Miranda, R.J.** (2023). Inclusive teaching Practices: Lessons from STEM courses. *Proceedings of the 2023 January Conference at Towson University. Towson, Maryland.*

Miranda, R.J., Gough, L., Hemm, M., & Agboka, T., Elkins, K., & Doyle, J. (2023) Professional learning community-professional development program for postsecondary STEM faculty developing inclusive course-based undergraduate research experiences. *Proceedings of the 2023 Association for Science Teacher Education International Conference. Salt Lake City, Utah.*

Gough, L., Hemm, M., & **Miranda, R.J.** (2022). Outcomes from an inclusive excellence project focused on CURE development**.** *Proceedings of the 2022 American Association of Colleges and Universities Conference. Crystal City, Virginia.*

Miranda, R.J (2022). Presidential Speaker Series: Strategic priorities of the association for science teacher education. *Proceedings of the 2022 School Science and Mathematics Association Convention. Missoula, Montana.*

Miranda, R.J., Gough, L., Hemm, M., & Agboka, T., Elkins, K., & Doyle, J. (2022) Professional development for STEM faculty developing inclusive course-based undergraduate research experiences (CUREs). *Proceedings of the 2022 Mid-Atlantic Association for Science Teacher Education Conference. West Portsmouth, Ohio.*

Miranda, R.J., Gough, L., Hemm, M., & Agboka, T. (2022). Virtual professional development for postsecondary science and mathematics faculty developing inclusive course-based undergraduate research experiences. *Proceedings of the 2022 Association for Science Teacher Education International Conference. Greenville, South Carolina.*

Miranda, R.J., Gough, L., Hemm, M., & Agboka, T., Margulies, B., & Beauchamp, V. (2021). Inclusive excellence professional development for postsecondary STEM faculty during a pandemic: Challenges and lessons learned. *Proceedings of the 2021 Mid-Atlantic Association for Science Teacher Education Conference. Blowing Rock, North Carolina.*

Miranda, R.J., Gough, L., Hemm, M., & Atuobi, T. (2021). Professional development for postsecondary science and mathematics faculty developing inclusive course-based undergraduate research experiences. *Proceedings of the 2021 Virtual Association for Science Teacher Education International Conference.*

Miranda, R.J., Moore J., Hermann, R.S., & Hurley K.P.* (2021) Motivations for pursuing and challenges to completing geoscience majors at a public university. *Proceedings of the Virtual Mid-Atlantic Association for Science Teacher Education Conference*.

Miranda, R.J., Gough, L., Hemm, M., & Atuobi, T. (2020). Inclusive excellence professional development for postsecondary science faculty developing course-based undergraduate research experiences. *Proceedings of the 2020 Association for Science Teacher Education International Conference. San Antonio, Texas.*

Lottero-Perdue, P.S., Haines, S., Cimino, K., & **Miranda, R.J.** (2020). Design and implementation of an integrated STEM program for PreK-6 teachers: Skilled graduates and recruitment dilemmas. *Proceedings of the 2020 Association for Science Teacher Education International Conference. San Antonio, Texas.*

Hemm, M., **Miranda, R.J.,** Atuobi, T., Beauchamp, V., Beck, H., Doyle, J., Oufiero, C., & Gough, L. (2019). TU REP: Lessons learned: Beyond cell & molecular biology at towson university. *Proceedings of the 2019 AACU Transforming STEM Higher Education Conference. Chicago, Illinois.*

Miranda, R.J., Gough, L., Hemm, M., & Atuobi, T. (2019). Inclusive Excellence Professional Development for Postsecondary Biology Faculty. *Proceedings of the 2019 Mid-Atlantic Association for Science Teacher Education Conference. Pipestem, West Virginia.*

Miranda, R.J., Scott, J.E., & Schaefer, K.G. (2019; Invited Speaker). Characteristics of effective astronomer-educator partnerships in formal urban middle school classrooms. *Proceedings of the 2019 American Astronomical Society Conference. Seattle, Washington.*

Miranda, R.J., Gough, L., Hemm, M., & Atuobi, T. (2019). Innovative inclusive professional development for postsecondary science faculty developing and implementing course-based undergraduate research experiences. *Proceedings of the 2019 Association for Science Teacher Education International Conference. Savannah, Georgia.*

Miranda, R.J., Gough, L., Hemm, M., & Atuobi, T. (2018). TU REP: Providing authentic research experiences in the college classroom to better educate all STEM. *Proceedings of the 2018 AACU Transforming STEM Higher Education Conference. Atlanta, Georgia.*

Miranda, R.J., Gough, L., Hemm, M., & Atuobi, T. (2018). Inclusive Excellence Professional Development for Postsecondary Biology Faculty Developing Course-based Undergraduate Research Experiences. *Proceedings of the 2018 Mid-Atlantic Association for Science Teacher Education Conference. Harrisonburg, Virginia.*

Gough, L., **Miranda, R.J.**, & Atuobi, T. (2018). TU REP: Providing authentic research experiences in the college classroom to better educate all STEM majors. *Proceedings of the Capital Regional Project Kaleidoscope Meeting, Baltimore, Maryland*

Miranda, R.J., Moore J., Hermann, R.S., & Hurley, K.P.* (2018). Undergraduate students' beliefs about their motivational reasons and hurdles for pursuing geoscience as a major or geoscience teaching certification. *Proceedings of the Association for Science Teacher Education, Baltimore, Maryland.*

Miranda, R.J., Moore J., Hermann, R.S., & Hurley K.P.* (2017) Undergraduate students' beliefs about their motivational reasons for pursuing geoscience as a major or geoscience teaching certification. *Proceedings of the Mid-Atlantic Association for Science Teacher Education*, *Prestonsburg, Kentucky*.

Moore, J., Hermann, R.S., **Miranda, R.J.**, & Hurley, K.P.* (2017). Characteristics and motivations of majors in a geosciences program with a large population of transfer students. *Proceedings of the Earth Educators' Rendezvous. Albuquerque, NM.*

Rivers, D.B., Tangrea, M.A., Costello, J., Gaines, B., **Miranda, R.J.**, Schuh-Nuhfer, N., Kennedy, K., Sanchez, J., Smith, M., Mudabuschi, A., Cancila, T., Thompson, C. (2017). Building a multidisciplinary network for preparing students for the bioscience workforce. *Proceedings of the Capital PKAL Regional Network Conference, Baltimore, MD.*

Miranda, R.J., Moore J., Hermann, R.S., Hurley, K.P.*, Wiechelt, K.* (2017). Influential factors that support the recruitment and retention of geoscience and geoscience education majors. *Proceedings of the Association for Science Teacher Education, Des Moines, Iowa.*

Hermann, R.S., Moore J., and **Miranda, R.J.** (2016) Encouraging students to pursue geoscience careers through instruction. *Proceedings of the Maryland Association for Science Teachers*, *Baltimore, MD.*

Miranda, R.J., Moore J., Hermann, R.S., Hurley K.P.*, and Wiechelt K.* (2016) Motivational factors and challenges that affect the recruitment and retention of undergraduate geoscience and secondary geoscience education majors. *Proceedings of the Mid-Atlantic Association for Science Teacher Education*, Gatlinburg, Tennessee.

Moore, J., Hermann, R.S., **Miranda, R.J.**, Wiechelt, K.*, & Hurley, K.P.* (2016). Broadening and improving transfer pathways for geoscience majors at a large comprehensive university. *Annual Meeting of the Geological Society of America, Denver, Colorado.*

Miranda, R.J. & Damico, J.B. (2016). Changes in Teachers' Beliefs about Science Teaching, Pedagogical Discontentment, and Classroom Practices Concerning Inquiry-Based Instruction. *Proceedings of the Association for Science Teacher Education, Reno, Nevada.*

Miranda, R.J. (2015). Characteristics of Effective Astronomy Education and Public Outreach Programs. Proceedings of the Mid-Atlantic Association for Science Teacher Education, Lore City, Ohio.

Miranda, R.J. & Damico, J.B. (2015). Changes in Teachers' Beliefs about Reformed Science Teaching and Learning and Practices Concerning Inquiry-Based Instruction. *Proceedings of the Association for Science Teacher Education, Portland, Oregon.*

Miranda, R.J. (2014; Invited Speaker). Changes in Teachers' Beliefs about Reformed Science Teaching and Learning, and their Inquiry-Based Instructional Practices Following a Year-Long RET-PLC Professional Development Program. *Proceedings of the American Geophysical Union, Francisco, California.*

Hermann, R.S. & **Miranda, R.J.** (2014). Embedding Vocabulary in an Inquiry-Based Lesson on Stratigraphic Principles. *Proceedings of the Maryland Association for Science Teachers*, *Baltimore, Maryland*.

Miranda, R.J. & Hermann, R.S. (2014) Integrating Scientific and Engineering Practices in an Inquiry-Based Lesson on Wind Powered Cars. *Proceedings of the Maryland Association for Science Teachers*, *Baltimore, Maryland*.

Miranda, R.J. & Damico, J.B. (2014). Changes in STEM Teachers' Beliefs about their Knowledge of, Experience with, and Comfort Level Planning and Implementing Inquiry-Based Instruction. *Proceedings of the Mid-Atlantic Association for Science Teacher Education, Blowing Rock, North Carolina.*

Miranda, R.J. & Damico, J.B. (2014). The role scientist mentors play with science teachers during a summer RET program. *Proceedings of the National Association for Research in Science Teaching, Pittsburgh, Pennsylvania.*

Miranda, R.J. (2014). Characteristics of effective scientist-educator partnerships and their impact on urban middle school students. *Proceedings of the Association for Science Teacher Education, San Antonio, Texas.*

Miranda, R.J., & Hermann, R.S. (2013). Integrating science and engineering practices in an inquiry-based lesson on wind-powered cars. *Proceedings of the Mid-Atlantic Association for Science Teacher Education, Daniels, West Virginia.*

Miranda, R.J., & Damico, J.B. (2013). Changes in teachers' beliefs and classroom practices concerning inquiry-based instruction following a year-long RET program. *Proceedings of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.*

Miranda, R.J., & Damico, J.B. (2013). Changes in teachers' beliefs about inquiry-based instruction following a year-long research experiences for teachers professional development program. *Proceedings of the Association for Science Teacher Education, Charleston, South Carolina.*

Miranda, R.J., & Damico, J.B. (2012). Changes in teachers' beliefs about essential skills for teaching science following a year-long research experiences for teachers professional development program. Proceedings of the *Mid-Atlantic Association for Science Teacher Education, Pembroke, Virginia.*

Miranda, R.J., & Damico, J.B. (2012). Science teachers' beliefs about the influence of their summer research experiences on their pedagogical strategies. *Proceedings of the National Association for Research in Science Teaching, Indianapolis, Indiana.*

Miranda, R.J. (2012). Urban high school teachers' beliefs of essential science teaching dispositions. *Proceedings of the Association for Science Teacher Education, Clearwater, Florida.*

Miranda, R.J. (2011). An integrated instructional approach to facilitate inquiry in the classroom. *Proceedings of the Mid-Atlantic Association for Science Teacher Education, Olive Hill, Kentucky.*

Miranda, R.J. (2011). The influence of teacher-scientist partnerships on urban middle school students' science learner characteristics. *Proceedings of the National Association for Research in Science Teaching, Orlando, Florida.*

Miranda, R.J. (2011). Investigating the influence of astronomer-educator partnerships on urban middle school students' science learner characteristics. *Proceedings of the Association for Science Teacher Education, Minneapolis, Minnesota.*

Miranda, R.J., & Hermann, R.S. (2010) Implementing open inquiry: Ideas for engaging students. *Proceedings of the National Science Teacher Association, Baltimore, Maryland.*

Miranda, R.J. (2010). Urban middle school teachers' beliefs about science learner characteristics: Implications for astronomy curriculum. *Proceedings of the Association for Science Teacher Education, Sacramento, California.*

Scott, J.E., & **Miranda, R.J.** Baltimore Project ASTRO. Poster presented at the 215th American Astronomical Society Meeting in Washington, DC. Bulletin of the American Astronomical Society, Vol. 42, p.412.

Miranda, R.J. (2009). Urban middle school teachers' beliefs about making astronomy culturally relevant to students: Implications for astronomy curriculum. *Proceeding of the Mid-Atlantic Association for Science Teacher Education, Friendship, Ohio.*

Miranda, R.J. (2009). A study of urban stakeholders' perceptions of effective high school science pedagogical skills. *Proceedings of the Association for Science Teacher Education, Hartford, Connecticut.*

Miranda, R.J. (2008). Highly qualified does not equal high quality: A study of urban stakeholders' perceptions of high quality in science teaching. *Proceedings of the National Association for Research in Science Teaching, Baltimore, Maryland.*

Miranda, R.J. (2008). Urban stakeholders' perceptions of high quality in science teaching. *Proceedings of the Association for Science Teacher Education, St. Louis, Missouri.*

Miranda, R.J. (2007, October). Promoting university, community, and K-12 public school partnerships: Current research trends in urban science outreach programs. *Proceedings of the Coalition of Urban and Metropolitan Universities, Baltimore, Maryland.*

Miranda, R. (2003, April). Negotiating meaning in a qualitative research methods class. *Proceedings of the American Educational Research Association, Chicago, Illinois.*

Miranda, R. (2003, March). Teachers' perceptions of science learner characteristics in urban high school settings: Implications for curriculum. *Proceedings of the National Association for Research in Science Teaching, Philadelphia, Pennsylvania.*

GRANT ACTIVITIES:

2017-2022	Howard Hughes Medical Institute: "Towson University-Research Enhancement Program (TU-REP): Expanding Inclusive Excellence in Science at Towson University," $1,000,000.00; ***Leadership Team and Faculty Professional Development Program Coordinator*** with Laura Gough (PI), Matthew Hemm (Co-PI), David Vanko (Co-PI), Cynthia Ghent (Co-PI), and Vanessa Beauchamp (Co-PI).
2016-2017	National Science Foundation (#1624143): "RCN-UBE Incubator: The Mid-Atlantic Biology Research and Career (MABRC) Network: Innovations in Biology Undergraduate Education," $50,000.00; ***Leadership Team and Steering Committee Member*** with David Rivers (PI) and Michael Tangrea (Co-PI).
2015-2018	National Science Foundation (#1540631): "GP-EXTRA: Towson University Geoscience Educational Opportunities for Careers (TU GEO Careers)," $348,182.00; ***External Evaluator*** with Joel Moore (PI) and Ronald Hermann (Co-PI).

2011-2014	National Aeronautics and Space Administration (NNX10AJ68G): "**B**altimore **E**xcellence in **S**cience, Technology, Engineering and Mathematics **T**eaching – the BEST Project," $1,000,000.00; ***co-Principal Investigator*** with K.Denniston (PI) and D.Vanko (Co-PI)
2010-2015	National Science Foundation (#0952923); "CAREER: Cosmic Recycling: Quasars, Galaxies, and Their Intergalactic Environs," $637,000.00; This grant award supports "Project ASTRO"; ***Evaluator and Co-Director of Project ASTRO*** with J.E. Scott (PI and Co-Director of Project ASTRO).
2011	Towson University Service-Learning Grant: "SCIE 170 Experiences in STEM Outreach, Teaching and Learning," $910.00; ***Principal Investigator*** with Karen Cimino (co-PI)
2009-2011	National Aeronautics and Space Administration (NNX09AT03G): **B**altimore **E**xcellence in **S**cience, Technology, Engineering and Mathematics **T**eaching – the BEST Project," $1,000,000.00; ***co-Principal Investigator*** with K.Denniston (PI) and D.Vanko (Co-PI)
2009	Towson University 2010 Service-Learning Grant: "Authentic Informal Environmental Education Lesson Planning and Presentation Experiences for Early Childhood Education Majors at Irvine Nature Center," $1,115.00; ***Principal Investigator***
2009	Fisher College of Science and Mathematics STEM Enhancement Fund: "Enhancing Student Experiences with Classroom Technology," $3,000.00; ***Principal Investigator***
2008	University System of Maryland: STEM Teachers Grant $20,000.00; ***co-Principal Investigator*** with D.Schaefer (PI) and Ron Hermann (Co-PI)
2008	Fisher College of Science and Mathematics General Endowment Fund: "Blinded by the Light: Urban K-12 Portable Planetarium Outreach," $3,305.00; ***Principal Investigator***
2008	Fisher College of Science and Mathematics General Endowment Fund: "Project ASTRO," $8,000.00; ***Co-Principal Investigator*** with J.E.Scott (Co-PI)
2007	Maryland Space Grant Consortium: "Project ASTRO" $5,618.00; ***Co-Principal Investigator*** with J.E.Scott (Co-PI)
2007	Fisher College of Science and Mathematics General Endowment Fund: "Project ASTRO," $10,000.00; ***Co-Principal Investigator*** with J.E.Scott (Co-PI)

INVITED TALKS AND PROFESSIONAL DEVELOPMENT WORKSHOPS (NOT PEER-REVIEWED)

May 2022	Presidential Address. Talk presented at the Virtual Mini in May Graduate Student Forum
May 2022	Sabbatical Presentation. Talk presented at the PAGS Colloquium Meeting; Towson University, Maryland
January 2022	ASTE President Vision Address. Talk presented at the International Association for Science Teacher Education Meeting; Greenville, South Carolina

January 2022	Presidential Panel. Talk presented at the International Association for Science Teacher Education Meeting; Greenville, South Carolina
January 2021	Presidential Panel. Talk presented at the Virtual Association for Science Teacher Education Meeting.
January 2021	Meet the Editors: Innovations in Science Teacher Education. Workshop presented at the Virtual Association for Science Teacher Education Meeting.
January 2020	Manuscript Reviewing 101: Honing Your Skills to be an Effective Reviewer. Workshop presented at the International Association for Science Teacher Education Meeting; San Antonio, Texas
January 2020	Meet the Editors: Innovations in Science Teacher Education. Workshop presented at the International Association for Science Teacher Education Meeting; San Antonio, Texas
January 2019	Manuscript Reviewing 101: Honing Your Skills to be an Effective Reviewer. Workshop presented at the International Association for Science Teacher Education Meeting; Savannah, Georgia
January 2019	Meet the Editors: Innovations in Science Teacher Education. Workshop presented at the International Association for Science Teacher Education Meeting; Savannah, Georgia
July 2018	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
April 2018	Project ASTRO. Presented poster at the BTU Showcase; Towson, Maryland.
January 2018	Manuscript Reviewing 101: Honing Your Skills to be an Effective Reviewer. Workshop presented at the International Association for Science Teacher Education Meeting; Baltimore, Maryland
January 2018	Meet the Editors: Innovations in Science Teacher Education. Workshop presented at the International Association for Science Teacher Education Meeting; Baltimore, Maryland
November 2017	Scientist-Teacher Partnerships. Invited talk for the American Institute of Physics Meeting and associated member societies (AAPT, AAS, APS, OSA); College Park, Maryland.
July 2017	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
April 2017	Project ASTRO. Presented poster at the BTU Showcase; Towson, Maryland.
January 2017	Meet the Editors: Innovations in Science Teacher Education. Workshop presented at the International Association for Science Teacher Education Meeting; Des Moines, Iowa
October 2016	Invited to speak at International Observe the Moon Night. Lake Roland Nature Center; Baltimore, MD.

August 2016	Invited to discuss the literary work*, The Sixth Extinction: An Unnatural History* (written by Pulitzer Prize winner Elizabeth Kolbert), with students at TU Honors College Orientation, Towson, MD.
July 2016	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
May 2016	Current Research on Project ASTRO. 2016 Project ASTRO National Network Site Leaders Meeting in Tucson, AZ.
May 2016	Invited panelist for the Maryland State Department of Education (MSDE) / Maryland Science Supervisors Association (MSSA) Spring Briefing at Chesapeake College on the Eastern Shore.
March 2016	Invited to present an astronomy workshop to 25 Master Naturalist at the James and Anne Robinson Nature Center; Columbia, MD.
February 2016	Invited to speak to the Diversity Faculty Fellows at Towson University on the topic "Scholarship, Inclusion, and PTRM".
January 2016	Introducing the *Innovations in Science Teacher Education* – A New Online ASTE Journal. *The Association for Science Teacher Education, Reno, Nevada.*
November 2015	Comets. Invited workshop presented to science teachers in the Harford County Public School System.
September 2015	Invited speaker for the International Observe the Moon Night at the Benjamin Banneker Historical Park and Museum; Catonsville, MD.
August 2015	Invited speaker for the TU STEM Education Center's New FCSM Faculty Workshop.
August 2015	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
July 2015	Evolving to Remain Relevant in Our Nation's Dynamic Educational Environment. Invited Plenary Speaker at the Accelerating Science Education Mobile Laboratory Coalition Conference; Baltimore, MD.
May 2015	Current Research on Project ASTRO. 2015 Project ASTRO National Network Site Leaders Meeting in San Francisco, CA.
August 2014	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
May 2014	Current Research on Project ASTRO. 2014 Project ASTRO National Network Site Leaders Meeting in Traverse City, Michigan.
April 2014	Project ASTRO. Presented poster at the 7th Annual Towson University Showcase; Towson, Maryland.
August 2013	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
June 2013	National Project ASTRO National Network (PANN). Workshops presented at the 2013 PANN Site Leaders' Meeting.

June 2013	Hosted 2013 National Project ASTRO Site Leaders' Meeting, Towson University; Towson, MD.
May 2013	Wind-Powered Vehicles; Workshop presented at the Towson University Center for STEM Excellence; Baltimore, Maryland.
October 2012	A Template for Open-Inquiry; Workshop presented at the Towson University Center for STEM Excellence; Baltimore, Maryland. Workshop Presentation.
May 2012	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
May 2012	Current Research on Project ASTRO. 2012 Project ASTRO National Network Site Leaders Meeting in West Chester, PA.
January 2012	Galileo's Telescope and the Scientific Method. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.
October 2011	Implementing Open Inquiry: Ideas for Engaging Students. Workshop presented for 23 in-service middle-school and high-school teachers participating in the Baltimore Excellence in STEM Teaching project in Baltimore, Maryland.
October 2011	Science Centers and Teachers Working Together. Workshop presented at the 2011 Association of Science Technology Centers Conference in Baltimore, Maryland.
October 2011	Deep Impact: The Influence of Astronomer-Educator Partnerships on Urban Middle School Students' Learner Characteristics. Invited talk presented for the Westminster Astronomical Society in Westminster, Maryland.
August 2011	Deep Impact. Featured special guest speaker at the 2011 Astronomical Society of the Pacific Annual Meeting in Baltimore, Maryland.
July 2011	The Inquiry Continuum. Invited talk presented at the NASA Goddard Space Flight Center for 24 in-service teachers (Grades 6-12) in Greenbelt, Maryland.
July 2011	In the Footsteps of Galileo Workshop presented with the Astronomical Society of the Pacific for 35 in-service teachers and faculty members (K-20) in Baltimore, Maryland.
July 2011	Culturally Relevant Ecology Workshop presented at Towson University for 5 RET/graduate students and in-service teachers.
May 2011	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
May 2011	Current Research on Project ASTRO. 2011 Project ASTRO National Network Site Leaders Meeting in Tucson, AZ.
February 2011	A Template for Open Inquiry. Invited workshop presented at the Harford County Public Schools Math and Science Partnership Program Meeting in Bel Air, MD.

January 2011	Galileo's Telescope and the Scientific Method. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.
July 2010	Teaching the Urban Water Cycle in Middle and High School Classrooms Workshop presented at Towson University for 8 RET/graduate students and in-service teachers.
May 2010	Project ASTRO. Workshop presented at The Maryland Science Center; Baltimore, MD.
May 2010	Current Research on Project ASTRO. 2010 Project ASTRO National Network Site Leaders Meeting in San Francisco, CA.
February 2010	Presto: Open Inquiry! Invited workshop (2 Days) presented at the Montgomery County Public Schools System Instructional Team Leaders Meeting.
December 2009	The Scale of Our Solar System. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.
October 2009	Presto: Open Inquiry! Session presented at the 2009 Maryland Association of Science Teachers (MAST) Meeting in Sykesville, MD.
July 2009	Incorporating Inquiry and Nature of Science in the Classroom Workshop presented at the University of Maryland, College Park for 20 in-service teachers in the ExPERT Program.
July 2009	Teaching the Urban Water Cycle in Middle and High School Classrooms Workshop presented at Towson University for 20 RET/graduate students and in-service teachers.
May 2009	Project ASTRO. Workshops (2 Days) presented at The Maryland Science Center; Baltimore, MD.
March 2009	Identifying the Tools Needed to Carry Out Inquiry - The Process Skills. Invited Workshop presented at the Maryland Science Center to 30 science educators from Maryland, Virginia and Washington D.C.
February 2009	Emerging Technology: Teaching with Clickers. Workshop presented at Towson University; Towson, MD.
December 2008	Investigating Force and Motion Via Wind Powered Vehicles. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.
November 2008	A Wonderful World of Motion. Invited Workshop presented at the Maryland Science Center to 30 science educators from Maryland, Virginia and Washington D.C.
August 2008	Project ASTRO. Workshops (2 Days) presented at Roland Park Elementary/Middle School; Baltimore, MD.
May 2008	Oh My Goodness, the Sky is Falling! The Science Behind Chicken Little. Workshop presented at the Towson University Sally Ride Science Festival.

May 2008	Blinded By the Light: Urban K-12 Portable Planetarium Outreach. Project presented at the TU Service Learning Subcommittee of the Civic Engagement Advisory Board Luncheon.
April 2008	Learning Science Through Inquiry. Invited Workshop presented at the Maryland Science Center to 40 science educators from Maryland, Virginia and Washington D.C.
December 2007	Integrating Portable Planetarium Activities into the K-12 Earth-Space Science Curriculum. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.
September 2007	Columbia Union College – Rolling Terrace Elementary School and Montgomery Blair High School Professional Development School Partnership Strategic Plan. Workshop presented at Sligo Creek Elementary School; Silver Spring, MD.
June 2007	"UN"-covering Science Through Inquiry: The Less is More Approach for Investigating Scientific Phenomenon. Workshop presented at the Towson University Sally Ride Science Festival.
June 2007	Columbia Union College – Montgomery Blair High School Professional Development School Partnership Strategic Plan. Workshop presented at Montgomery Blair High School; Silver Spring, MD.
April 2007	Strategic Planning for Professional Development Schools: Overview of Process/Outcomes. Invited talk presented at Columbia Union College for Members of the Coordinating Council, Montgomery Blair High School & Rolling Terrace Elementary School.
February 2007	Excursion series: Rockets, Satellites & Space Stations. Talk/Planetarium Show presented at Towson University's Watson-King Planetarium for the Irvine Nature Center.
December 2006	Exploring Scientific Phenomena Through Inquiry: Transcending from scientific demonstrations to scientific investigations. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.
June 2006	Prince Hercules and the Amazing Water Filter. Workshop presented to students from Southside Academy High School and Western High School participating in Towson University's Summer Science Workshop.
June 2006	Summer Science Institute. Institute presented to science faculty at Woodlawn High School in the Baltimore County Public School System.
September 2005	Promoting the Research Agenda: Current K-16 Research Trends. Invited talk presented at the meeting of the Urban Education Conference at Morgan State University.
July 2005	Summer Institute for Science and Mathematics Teachers. Institute presented at Morgan State University's Center for Excellence in Mathematics and Science Education, Baltimore, MD
July 2002	Beginner, Intermediate, and Advanced PowerPoint. Workshop presented to science and mathematics educators at Morgan State University's Center for Excellence in Mathematics and Science Education, Baltimore, MD

October 2001	Hands-on Approaches to Teaching Sound, Color, Light, Electricity, and Magnetism. Workshop presented to science teachers in the Baltimore City Public School System
June 1999 - August 2002	NASA High School Internship Program (NASA-SHIP). Facilitated program at Morgan State University's Center for Excellence in Mathematics and Science Education, Baltimore, MD
December 2000	Effective Use of PowerPoint in Science and Mathematics Classrooms. Workshop presented at the meeting of the Morgan State University's Annual Mathematics and Science Education Conference.

SIGNIFICANT PROFESSIONAL SERVICE

2023	ASTE Past President; ASTE Executive Committee, ASTE Board of Directors.
2022	ASTE President; Chair of ASTE Executive Committee, Chair ASTE Board of Directors.
2021	ASTE, President-Elect; ASTE Executive Committee, ASTE Board of Directors.
2018	Co-Conference Chair for the Association for Science Teacher Education, Baltimore, MD.
(2017 – 2020)	Board of Directors (Regional Representative) for the Association for Science Teacher Education
2017	MA-ASTE Graduate Student Research Presentation Award Review Panel
(2016 - 2021)	Co-Editor (Inaugural), Innovations in Science Teacher Education Journal
(2016 - 2021)	Publications Committee, Association for Science Teacher Education
2016	MA-ASTE Graduate Student Research Presentation Award Review Panel
2016	Panel Participant for the "Bridging Research and Practice in STEM Education for African American K-12 Learners. Morgan State University; Funded by the Spencer Foundation.
(2015 - 2018)	Co-Editor, Association for Science Teacher Education Newsletter
(2015 - 2018)	Publications Committee, Association for Science Teacher Education
2015	MA-ASTE Graduate Student Research Presentation Award Review Panel
(2014 - 2017)	Regional Director for the Mid-Atlantic Association for Science Teacher Education (DC, DE, KY, MD, NC, southern parts of OH, TN, VA, WV)
2014	MA-ASTE Graduate Student Research Presentation Award Review Panel
(2012 - 2015)	Co-Editor, Association for Science Teacher Education Newsletter
(2012 - 2015)	Publications Committee, Association for Science Teacher Education

November 2010	Manager of Services for People with Disabilities for the regional NSTA Conference; Baltimore MD.
August 2011	Local Organizing Committee for the 2011 Astronomical Society of the Pacific Annual Conference; Baltimore, MD
July 2009	Paquin ES/MS Principal Panel Selection Committee
December 2009	Panel Member. The Fort Meade Alliance 3rd Annual Educational Forum; Fort Meade, MD.

SIGNIFICANT NATIONAL PANEL REVIEWING

2015	Panel Reviewer for the NSF Innovative Technology Experiences for Students and Teachers (ITEST) Program; Arlington, VA.
2013	Panel Chair and Panel Reviewer for the NSF Mathematics and Science Partnerships (MSP) Program; Arlington, VA.
2012	Panel Reviewer for the NSF Historically Black Colleges and University Undergraduate Program (HBCU-UP) Program; Arlington, VA.
2012	Panel Reviewer for the NSF Mathematics and Science Partnerships (MSP) Program; Arlington, VA.
2012	Panel Reviewer for the NSF Research on Gender in Science and Engineering (GSE) Program; Arlington, VA.
2010	Panel Reviewer for the NSF Advanced Technological Experiences (ATE) Program; Washington D.C.
2009	Panel Reviewer for the NSF Mathematics and Science Partnerships (MSP) Program; Arlington, VA.
2009	Panel Reviewer for the NSF Innovation through Institutional Integration (I3) Program; Arlington, VA.
2009	Panel Reviewer for the NSF Mathematics and Science Partnerships (MSP) Program; Arlington, VA.
2008	Panel Reviewer for the NASA Education and Public Outreach in Earth and Space Science (EPOESS) Program; Washington, D.C.
2008	Panel Reviewer for the NSF Informal Science Education (ISE) Program; Arlington, VA.
2008	Panel Reviewer for the NSF Innovative Technology Experiences for Students and Teachers (ITEST) Program; Washington D.C.
2007	Panel Reviewer for the NSF Advanced Technological Experiences (ATE) Program; Washington D.C.
2007	Panel Reviewer for the NSF Innovative Technology Experiences for Students and Teachers (ITEST) Program; Arlington, VA.

EXTERNAL FACULTY DOSSIER REVIEW

January 2022	New York University
August 2021	Brigham Young University

July 2021	Loyola University Chicago
July 2021	University of Idaho
May 2020	University of Louisville
January 2019	University of North Carolina Wilmington
July 2018	Indiana University-Purdue University Indiana
August 2016	East Carolina University
August 2016	Bellarmine University
August 2015	Indiana University-Purdue University Indiana

JOURNAL AND TEXTBOOK REVIEWING (PEER-REVIEWED)

December 2022	Invited Reviewer for Journal of Chemistry Education
August 2021	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
July 2021	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
June 2021	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
May 2021	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
May 2021	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
April 2021	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research
August 2020	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
May 2020	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research
January 2020	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
January 2020	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research
October 2019	Invited Reviewer for a manuscript submitted to Journal of STEM Outreach
January 2019	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research
September 2018	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research

September 2017	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research
June 2017	Invited Reviewer for a manuscript submitted to Physical Review: Physics Education Research
May 2014	Invited Reviewer for a manuscript submitted to Urban Education
October 2013	Textbook Reviewer, National Science Teacher Association.
June 2013	Invited Reviewer for a manuscript submitted to Urban Education
June 2012	Invited Reviewer for a manuscript submitted to Urban Education

INTERNATIONAL/NATIONAL CONFERENCE REVIEWING (PEER-REVIEWED)

August 2021	ASTE Conference Paper Reviewer
August 2017	ASTE Conference Paper Reviewer
August 2016	ASTE Conference Paper Reviewer
August 2015	ASTE Conference Paper Reviewer
September 2014	NARST Conference Paper Reviewer
August 2014	ASTE Conference Paper Reviewer
September 2013	NARST Conference Paper Reviewer
August 2013	ASTE Conference Paper Reviewer (Equity and Diversity Strand)
August 2012	NARST Conference Paper Reviewer
October 2011	NARST Conference Paper Reviewer
August 2011	ASTE Conference Paper Reviewer
October 2010	NARST Conference Paper Reviewer
August 2010	ASTE Conference Paper Reviewer
October 2009	NARST Conference Paper Reviewer
September 2008	NARST Conference Paper Reviewer
August 2008	AERA Conference Paper Reviewer
September 2007	NARST Conference Paper Reviewer
September 2007	AERA Conference Paper Reviewer
May 2007	CUMU Conference Abstract Reviewer

UNIVERSITY COMMITTEES:

Spring 2023	Teacher Education Executive Board
Spring 2017 – Spring 2018	BTU President's Council (Appointed by the TU President)

Spring 2016 – Current	Appointment, Rank and Tenure of Faculty Document Review Committee (Appointed by the TU Provost)
Fall 2014 – Fall 2016	University Partnership Working Group Committee (Appointed by the TU Provost)
Spring 2010	University Middle States Re-accreditation Committee
Fall 2008	University STEM Steering Subcommittee, Towson University STEM Celebration and EXPO (Organizer)
Spring 2008 – Spring 2010	University STEM Steering Committee
Fall 2008 - Fall 2009	Teacher Education Executive Board
September 2007 – Jan 2008	Towson University Focus the Nation Organizing Committee (Chair)
May - October 2007	American Heart Association 2007 Heart Walk Logistics Committee (Chair; TU Chapter Organizer)
February - October 2007	Coalition of Urban and Metropolitan Universities (CUMU) Conference Programming Committee

COLLEGE COMMITTEES:

Fall 2013 - Spring 2016	College Promotion, Tenure, Reappointment, Merit Committee; (Chair 2015-2016)
Fall 2012 – Spring 2016	College Diversity Committee
Fall 2008 - Spring 2009	College Council (1 Year PAGS Sabbatical Replacement; 1 Year Recording Secretary Sabbatical Replacement)

DEPARTMENTAL COMMITTEES:

Fall 2022 – Current	Department Curriculum Committee (Chair)
June 2020	Department Merit Committee
June 2017 – June 2019	Department Merit Committee (Chair)
June 2016 – June 2018	Department Science Edcuation Group Coordinator
Fall 2013 – Current	Department Tenure Committee
June 2013 – August 2014	Department Science Education Group Coordinator
Fall 2011- Current	Department Promotion and Comprehensive Review Subcommittee
Fall 2011 – Spring 2016	Department Diversity Committee (Chair)
Fall 2010	Geology Search Committee
Fall 2010 - Current	Department Rank Committee
Spring 2009	Room Usage Group Committee
Fall 2009 - Current	College STEM Vehicle Coordinator
Fall 2009 - Spring 2010	Science Coordinator Position Search Committee

Fall 2008	Secondary Science Education Search Committee (Chair)
Fall 2008	Elementary Science Education Search Committee
Fall 2008 – Spring 2011	Department Curriculum Committee
Spring 2008	Secondary Science Education Search Committee

PROFESSIONAL SERVICE TO THE COMMUNITY AND THE DICIPLINE

July 2021 - Current	Maryland Science Center. Earth and Space Exhibit Planning Committee
April 2017	Science Fair Judge. Lutherville Laboratory School, Baltimore, MD.
January 2017	Science Fair Judge. St. Joseph School, Cockeysville, MD.
January 2015	Science Fair Judge. St. Joseph School, Cockeysville, MD.
April 2014	Science Fair Judge. Lutherville Laboratory School, Baltimore, MD.
January 2014	Served as head administrative judge at the St. Joseph School Science Fair.
January 2013	Served as head administrative judge at the St. Joseph School Science Fair.
May 2012	Science Fair Judge. Lutherville Laboratory School, Baltimore, MD.
June 2011	Hispanic Youth Institute Judge: Issues to Action Finals, Towson University
March 2011	Moderator for breakout group at the 17th Annual Multicultural Conference; Baltimore, MD.
April 2010	Science Fair Judge. Lutherville Laboratory School, Baltimore, MD.
June 2009	Co-moderator for the STEM Summit Breakout Group “Developing and Sustaining STEM Partnerships in the Community: Cherry Hill, Southside Academy and Beyond.”
April 2009	Science Fair Judge. Lutherville Laboratory School, Baltimore, MD.
May 2008	53rd Baltimore Science Fair Judge at Towson University; Towson, MD.
March 2008	Session Moderator for NARST
October 2007	13th Annual CUMU Conference Session Moderator; Baltimore, MD.

PK-12 OUTREACH AND CIVIC ENGAGEMENT

February 2019	Facilitated hands-on astronomy activities and coordinated a planetarium show at the 2019 Maryland Association for Environmental and Outdoor Education (MAEOE) conference in Baltimore, MD.
May 2018	Helped to organize and facilitate an astronomy program (9am-1pm) on-campus for 35 students and teachers from Renaissance High School.
April 2018	I facilitated a hands-on science straw rocket activity during the STEAM Celebration Festival at the Benjamin Banneker Historical Park and Museum.

November 2017	Helped to organize and facilitate an astronomy program (9am-1pm) on-campus for 35 students and teachers from Chesapeake High School.
November 2016	Facilitated physical science shows with TU students (Kristen Zdon, Danielle Needham, Sophie Manik, Jana Serini, and Gabriella Harris) to 230 students at Norwood Elementary School; Baltimore, Maryland.
January 2016	Portable planetarium shows (3 Total) presented to 45 first and second grade students at St. Joseph School; Cockeysville, MD.
December 2015	Renaissance Academy HS Field Trip to Towson University. Facilitated an all-day astronomy schedule of events for 40 students, with the TU Society of Physics Students, and the TOPS program students at Towson University.
November 2015	Facilitated an Inquiry-based Activity on Wind-Powered Cars with 20 middle schools students participating in STEM Day at Towson University; Towson, MD.
July 2015	Facilitated Inquiry-based Astronomy Activities at TU with 70 middle school students participating in the Middle Grades Partnership (Mt. Royal MS/ McDonogh School); Towson, MD.
May 2015	Facilitated Inquiry-based Science Activities with TU pre-service teachers to 60 elementary students at St Elizabeth School; Baltimore, MD.
March 2015	Facilitated a 2-hr Star Party and activities on Constellations and Comets with 18 sixth grade students and their families at St. Joseph School; Cockeysville, MD.
March 2015	Portable Planetarium shows (3 total) presented to 45 home school students and parents at the Benjamin Banneker Historical Park and Museum; Catonsville, MD.
February 2015	Portable planetarium shows (3 Total) presented to 75 students (first grade) at Mount Washington Elementary School; Baltimore, MD.
November 2014 – May 2016	Mentored HS Student (Calvert Hall) 1 Hour/Week for their HS STEM Certification Program
July 2014	Portable Planetarium show presented to 11 students at the Benjamin Banneker Historical Park and Museum; Catonsville, MD.
May 2014	Facilitated Science Activities to 60 students (Grades 6-12) at St Elizabeth School; Baltimore, MD.
May 2014	Portable Planetarium shows (2 total) presented to 50 students (Grades 6-8) at Arlington Elementary/Middle School; Baltimore, MD.
April 2014	Portable Planetarium shows (15 total) presented to 240 students (Grades PK-5) at Medfield Heights Elementary School; Baltimore, MD.
February 2014	Facilitated a Star Party and activities on Comets, Telescopes, and the Phases of the moon and Venus with 33 sixth grade students at St. Joseph School; Cockeysville, MD.
February 2014	Portable planetarium shows (3 Total) presented to 60 students in the Boy Scouts of America Regional Meeting in Hereford, MD.

December 2013	Facilitated a week-long hands-on astronomy module on “Rocketry, Kepler’s Laws, and Comets” with 33 sixth grade students at St. Joseph School; Cockeysville, MD.
November 2013	Facilitated hands-on astronomy activities and planetarium show to the Hereford Boy Scout Troop with 5 Earth-Space Science Students.
October 2013	Planetarium shows (3 total) presented to 60 students from Baltimore City Public Schools participating in TU Building STEPS.
May 2013	Portable planetarium show presented to 25 Pre-K students at Hamilton Elementary School; Baltimore, MD.
May 2013	Portable planetarium shows presented to 50 students at Mount Washington Elementary School; Baltimore, MD.
April 2013	Portable planetarium shows presented to 310 students at Medfield Heights Elementary School; Baltimore, MD.
January 2013	Portable planetarium show presented to 25 students at Vivien T. Thomas High School, Baltimore City.
January 2013	Portable planetarium show presented to 20 sixth grade students at St. Joseph School; Cockeysville, MD.
January 2013	Portable planetarium shows presented to 80 students at the Baltimore Rising Star Academy, Baltimore, MD.
January 2013	Facilitated hands-on astronomy activities on Rocketry and Kepler’s Laws (over 4 days) with 20 sixth grade students at St. Joseph School; Cockeysville, MD.
December 2012	Portable planetarium shows presented to 175 students at Hamilton Elementary/Middle School; Baltimore, MD.
November 2012	Portable planetarium shows presented to 90 students at Edmonson Westside High School; Baltimore, MD.
November 2012	With Dr. Karen Schaefer, I facilitated hands-on astronomy activities with 90 high school students at Edmonson Westside High School; Baltimore, MD.
May 2012	Facilitated Hands-on Science Activity on Oobleck (Non-Newtonian Fluid) presented to 2 classes (Grades 6-12) at St Elizabeth School; Baltimore, MD.
April 2012	Portable Planetarium shows presented to 240 students (Grades PK-5) at Medfield Heights Elementary School; Baltimore, MD.
April 2012	Portable Planetarium show presented to 6 Boy Scouts (Grade 4) from St. Joseph School; Cockeysville, MD.
March 2012	Portable Planetarium shows presented to 100 students (Grades 6-8) at Friendship Academy of Science and Technology, Baltimore, MD.
February 2012	Facilitated Inquiry-Based Science Activity on the Egg-Drop presented to 2 classes of high school students from W.E.B. Debois High School; Baltimore, MD.

January 2012	Portable Planetarium shows presented to 100 students (Grades K-1) at St. Joseph School; Cockeysville, MD.
January 2012	Portable Planetarium shows presented to 25 students (Grade 2) at Edgewood Elementary School; Baltimore, MD.
January 2012	Portable Planetarium shows presented to 35 members of the visiting public at the Oregon Ridge Nature Center; Hunt Valley, MD.
September 2011	Portable Planetarium shows presented to 54 students (Grade 1) at Yorkwood Elementary School; Baltimore, MD.
April 2011	Portable Planetarium shows presented to 225 students (Grades 3-8) at Garrett Heights Elementary/Middle School, Glenmount Elementary Middle School, and the Boy Scouts of America Regional Meeting at Sacred Heart Elementary/Middle School; Baltimore, MD.
January 2011	Portable Planetarium show presented to 25 students (Grades 9-12) at Patterson High School; Baltimore, MD.
October 2010	Portable Planetarium show presented to 30 students (Grades K-5) at Tridelphia Ridge Elementary School; Ellicott City, MD.
October 2010	Facilitated Inquiry-Based Science Activity on the Egg-Drop presented to 24 students (Grades 9-12) at Dundalk High School; Baltimore, MD.
June 2010	Portable Planetarium shows presented to 90 students (Grades K-5) at the Immaculate Heart of Mary School; Baltimore, MD.
May 2010	Portable Planetarium shows presented to 100 students (Grades 6-8) at Baltimore Rising Star Academy; Baltimore, MD.
April 2010	Portable Planetarium shows presented to 60 students (Grades 6-8) at Cockeysville Middle School; Baltimore, MD.
April 2010	Planetarium shows presented to 35 students from Friendship Academy of Science and Technology; Baltimore, MD.
March 2010	Portable Planetarium show presented to 25 community members at the Marshy Point Nature Center; Baltimore, MD.
January 2009	Portable Planetarium shows presented to 240 students (Grades PK-5) at Medfield Heights Elementary School; Baltimore, MD.
January 2009	Portable Planetarium show presented to 75 students (Grade 6) at Garrison Middle School; Baltimore, MD.
December 2009	Portable Planetarium shows presented to 140 students (Grades 9-10) at Baltimore Community School; Baltimore, MD.
December 2009	Facilitated Inquiry-Based Science Activity on Water Filtration presented to 70 students (Grades 6-12) at St Elizabeth School; Baltimore, MD.
December 2009	Portable Planetarium show presented to 25 middle school students in an after school science club at Chinquapin Middle School; Baltimore, MD.
May 2009	Facilitated Inquiry-Based Science Activity on Force and Motion presented to 70 students (Grades 6-12) at St Elizabeth School; Baltimore, MD.

April 2009	Portable Planetarium shows presented to 150 students (Grades 1-5) at Tridelphia Ridge Elementary School; Ellicott City, MD.
April 2009	Portable Planetarium shows presented to 120 students (Grades 3-7) at Rosemont Elementary/Middle School; Baltimore, MD.
February 2009	Portable Planetarium shows presented to 100 students (Grades 3-8) at Arlington Elementary/Middle School; Baltimore, MD.
January 2009	Portable Planetarium shows presented to 140 students (Grades 5-8) at Franklin Square Elementary/Middle School; Baltimore, MD.
January 2009	Portable Planetarium shows presented to 140 students (Grades 6-8) at Baltimore Rising Star Academy; Baltimore, MD.
November 2008	Portable Planetarium shows presented to 100 students (Grades 1-5) at Harriet Tubman Elementary School; Baltimore, MD.
October 2008	Portable Planetarium shows presented to 140 students (Grades 6-12) at St Elizabeth School; Baltimore, MD.
July 2008	Planetarium shows presented to 50 students (Grades PK-5) from the Harford County Celebree Learning Center.
July 2008	Planetarium shows presented to 60 students participating in the Middle Grades Partnership (Calverton Middle School).
May 2008	Portable Planetarium shows presented to 60 fifth grade students at Arlington Elementary School; Baltimore, MD.
May 2008	Portable Planetarium show presented to 25 students in an after school science club at Rosa Parks Middle School; Olney, MD.
April 2008	Planetarium shows presented to 57 students from Halethorpe Elementary School participating in TU College Horizons.
April 2008	Planetarium shows presented to 88 students from Reisterstown Elementary School participating in TU College Knowledge.
April 2008	Portable Planetarium show presented to 15 faculty/staff/community members at Arundel Elementary School; Baltimore, MD.
April 2008	Portable Planetarium show presented to 25 faculty/staff/community members at Southside Academy High School; Baltimore, MD.
April 2008	Portable Planetarium show presented to 20 faculty/staff/community members at Garrison Middle School; Baltimore, MD.
April 2008	Facilitated Inquiry-Based Science Activity on water filtration presented to 24 students (Grades 4-5) at Roland Park Elementary/Middle School; Baltimore, MD.
February 2008	Portable Planetarium shows presented to 140 students (Grades 9-12) at Southside Academy High School; Baltimore, MD.
February 2008	Portable Planetarium shows presented to 120 students (Grades PK-5) at James McHenry Elementary School. Baltimore, MD.

January 2008	Portable Planetarium show presented to 25 community members at Irvine Nature Center; Baltimore, MD.
January 2008	Portable Planetarium shows presented to 91 students (Grades 1-8) at Our Lady of Grace School. Baltimore, MD.
November 2007	Payloads in space. Workshop presented to 11 students participating in SciGirls at the Maryland Science Center; Baltimore, MD.
June 2007	Portable Planetarium shows presented to 160 students at George Washington Elementary School; Baltimore, MD.
May 2007	Portable Planetarium shows presented at Presented at the Baltimore Convention Center for the Baltimore Opportunity Summit; Baltimore, MD.