

---

**ANGELA M. KELLY**

---

Associate Professor, Institute for STEM Education and Department of Physics & Astronomy  
Associate Director of Science Education, Institute for STEM Education, Stony Brook University  
angela.kelly@stonybrook.edu

---

**PUBLICATIONS**

---

**Refereed Journals**

- [24] Cohen, R.,\* & **Kelly, A. M.** (in press). The impact of community college science and mathematics coursetaking and remediation on graduation, transfer, and non-completion rates. *The Review of Higher Education*.
- [23] Gatz, J.,\* **Kelly, A. M.**, & Clark, S. L. (in press). Improved executive function and science achievement for at-risk middle school girls in an aerobic fitness program. *The Journal of Early Adolescence*. Prepublished April 20, 2018; doi: 10.1177/0272431618770786.
- [22] Nehmeh, G.,\* & **Kelly, A. M.** (in press). Urban science teachers in isolation: Challenges, resilience, and adaptive action. *Journal of Science Teacher Education*. Prepublished May 25, 2018; doi: 10.1080/1046560X.2018.1474425.
- [21] Gatz, J.,\* & **Kelly, A. M.** (2018). Afterschool school triathlon training for 11-14 year old girls: Influences on academic motivation and achievement. *Health Education Journal*, 77(2), 156-168.
- [20] Nehmeh, G.,\* & **Kelly, A. M.** (2018). Women physicists and sociocognitive considerations in career choice and persistence. *Journal of Women and Minorities in Science and Engineering*, 24(2), 95-119.
- [19] Bugallo, M. F., & **Kelly, A. M.** (2017). Engineering outreach: Yesterday, today, and tomorrow. *IEEE Signal Processing Magazine*, 34(3), 69-100.
- [18] McHugh, L.,\* **Kelly, A. M.**, & Burghardt, M. D. (2017). Teaching thermal energy concepts in a middle school mathematics-infused science curriculum. *Science Scope*, 41(1), 33-40.
- [17] **Kelly, A. M.** (2016). Social cognitive perspective of gender disparities in undergraduate physics. *Physical Review Physics Education Research*, 12(2), 020116. doi: 10.1103/PhysRevPhysEducRes.12.020116.
- [16] Bugallo, M. F., **Kelly, A. M.**, & Ha, M. (2015). Impact of a university-based electrical and computer engineering summer program for high school students. *International Journal of Engineering Education*, 31(5), 1419-1427.
- [15] **Kelly, A. M.**, Gningue, S. M., & Qian, G. (2015). First-year urban mathematics and science teachers: Classroom challenges and reflective solutions. *Education and Urban Society*, 47(2), 132-159.
- [14] **Kelly, A. M.** (2013). Physics teachers' perspectives on factors that affect urban physics participation and accessibility. *Physical Review Physics Education Research*, 9(1), 010122. doi: 10.1103/PhysRevSTPER.9.010122.
- [13] **Kelly, A. M.** (2012). Engaging students in classifying matter. *The Science Teacher*, 79(7), 16-17.
- [12] **Kelly, A. M.**, & Gonzalez, C.\* (2012). Urban secondary science teacher career satisfaction and retention in an alternative certification program. *Excelsior: Leadership in Teaching and Learning*, 6(2), 47-64.
- [11] Bradley, D. B., & **Kelly, A. M.** (2011). Promoting inclusiveness in acoustical physics. *Academic Exchange Quarterly*, 15(4), 88-93. Reprinted in Deprez, M. D., (Ed.). (2014). *Collaboration in Education: Sound Instruction, Volume 3*. Stuyvesant Falls, NY: Rapid Intellect.
- [10] **Kelly, A. M.** (2011). Teaching Newton's laws with the iPod Touch in conceptual physics. *The Physics Teacher*, 49(4), 202-205.
- [9] **Kelly, A. M.**, & Kennedy-Shaffer, R.\* (2011). Teaching Newton's laws to urban middle school students: Strategies for conceptual understanding. *Journal of Curriculum and Instruction*, 5(1), 54-67.
- [8] Aquino, A. E., **Kelly, A. M.**, & Bayne, G. U. (2010). Sharing our teachers: The required graduate class at the American Museum of Natural History for Lehman College (CUNY). *The New Educator*, 6(3/4), 225-246.
- [7] Chen, J., Shankar, S., **Kelly, A. M.**, Gningue, S., & Rajaravivarma, R. (2010). A two-stage approach for contiguous sequential pattern mining. *International Transactions on Systems Science and Applications*, 6(2/3), 113-120.
- [6] **Kelly, A. M.** (2010). Transformative informal physics in the Bronx. *Academic Exchange Quarterly*, 14(1), 57-62.
- [5] **Kelly, A. M.**, & Sheppard, K. (2010). The relationship between the urban small schools movement and access to physics education. *Science Educator*, 19(1), 14-25.

**Refereed Journals (continued)**

- [4] **Kelly, A. M.**, & Smith, J. (2010). Science education and TESOL: A collaborative professional development model for first-year teachers in alternative certification programs. *Excelsior: Leadership in Teaching and Learning*, 4(2), 27-45.
- [3] Sloan, H., & **Kelly, A. M.** (2010). The TRUST (Teacher Renewal for Urban Science Teachers) Partnership: Institutional impacts at Lehman College. *The New Educator*, 6(3/4), 212-224.
- [2] **Kelly, A. M.**, & Sheppard, K. (2009). Secondary physics availability in an urban setting: The relationship to academic achievement and course offerings. *American Journal of Physics*, 77(10), 902-906.
- [1] **Kelly, A. M.**, & Sheppard, K. (2008). Newton in the Big Apple: Access to high school physics in New York City. *The Physics Teacher*, 46(5), 280-283.

**Invited Articles**

- [4] Sheppard, K., McCarthy, R., **Kelly, A. M.**, & Drees, A. (2017). Stony Brook University physics teacher preparation program – The 6 “C”s. In R. Steinberg (Ed.), *APS Forum on Education Newsletter* (pp. 12-13). College Park, MD: American Physical Society.
- [3] Bugallo, M. F., & **Kelly, A. M.** (2014). Electrical and computer engineering outreach at Stony Brook University. *The Pulse of Long Island IEEE Newsletter*, 61(4), 8-9.
- [2] Norris, L., & **Kelly, A. M.** (2013). *Position statement of the National Alliance of Black School Educators on Physics First*. Position paper published on the website of the National Society of Black Physicists.
- [1] **Kelly, A. M.** (2008). *No Child Left Behind (NCLB) and issues of equity in physics access and enrollment*. Position paper published in the Public Policy Forum of the National Society of Black Physicists.

**Invited Conference Proceedings**

- [2] **Kelly, A. M.** (2008). Inequities in physics access and enrollment in urban high schools. In C. Henderson, M. Sabella, & L. Hsu (Eds.), *2008 American Institute of Physics Conference Proceedings Series: Vol. 1064. Physics Education Research Conference* (pp. 30-33). Melville, NY: American Institute of Physics.
- [1] **Kelly, A. M.** (2007). Inequities in physics access for students in urban secondary schools. *Lay Language Paper Index of the 154<sup>th</sup> Acoustical Society of America Meeting*, New Orleans, LA.

**Refereed Conference Proceedings**

- [14] Gatz, J.,\* **Kelly, A. M.**, & Bugallo, M. F. (2018). The power of peer mentoring of undergraduate women in engineering: Fostering persistence through academic and social integration. *Proceedings of the 2018 American Society of Engineering Education Annual Conference & Exposition*, Salt Lake City, UT.
- [13] Gearns, R.,\* **Kelly, A. M.**, & Bugallo, M. F. (2018). Professional development for high school guidance counselors to facilitate precollege stem preparation. *Proceedings of the 2018 American Society of Engineering Education Annual Conference & Exposition*, Salt Lake City, UT.
- [12] Heal, K.,\* **Kelly, A. M.**, Bugallo, M. F., & Sheppard, K. (2018). University-based training of high school science teachers to implement the next generation science standards. *Proceedings of the 2018 American Society of Engineering Education Annual Conference & Exposition*, Salt Lake City, UT.
- [11] **Kelly, A. M.**, Aveni, D., & Bugallo, M. F. (2018). Women in science and engineering: A framework for an honors undergraduate curriculum. *Proceedings of the 2018 American Society of Engineering Education Annual Conference & Exposition*, Salt Lake City, UT.
- [10] **Kelly, A. M.**, Bugallo, M. F., Nehmeh, G.,\* & Gatz, J.\* (2018). Improving undergraduate science and engineering instruction at a research university: Challenges and solutions. *New Perspectives in Science Education, Conference Proceedings 2018, 7<sup>th</sup> ed.* Florence, Italy.
- [9] Krayem, Z., **Kelly, A. M.**, Bugallo, M. F., Westerfeld, D., Gearns, R.,\* & Westervelt, K. (2018). Precollege electrical engineering outreach: The design of a home security system. *Proceedings of the 2018 American Society of Engineering Education Annual Conference & Exposition*, Salt Lake City, UT.
- [8] Sherwood, K.,\* **Kelly, A. M.**, & Bugallo, M. F. (2018). Peer mentoring of undergraduate women in engineering as a mechanism for leadership transition. *Proceedings of the 2018 American Society of Engineering Education Annual Conference & Exposition*, Salt Lake City, UT.
- [7] Bugallo, M. F., & **Kelly, A. M.** (2015). An outreach afterschool program to introduce high school students to electrical engineering. *International Conference on Acoustics, Speech, and Signal Processing* (pp. 5540-5544), Brisbane, Australia.

**Refereed Conference Proceedings (continued)**

- [6] Issapour, M.,\* & Kelly, A. M. (2015). How student gender, SAT scores and interest in science relates to their performance in introductory coursework in engineering technology. *Integrated STEM Education Conference (ISEC), 2015 IEEE 5<sup>th</sup>* (pp. 221-224), Princeton, NJ.
- [5] Kelly, A. M., Charles, T.,\* Ha, M., & Sheppard, K. (2015). A case study of a school district assessment system and its correlation with student performance in physical sciences. In P.V. Engelhardt, A.D. Churukian, & D.L. Jones (Eds.), *2014 American Institute of Physics Conference Proceedings Series: Vol. 1070. Physics Education Research Conference* (pp. 127-130). Melville, NY: American Institute of Physics.
- [4] Bugallo, M. F., & Kelly, A. M. (2014). A pre-college recruitment strategy for electrical and computer engineering study. *Integrated STEM Education Conference (ISEC), 2014 IEEE 4<sup>th</sup>* (pp. 1-4), Princeton, NJ.
- [3] Kelly, A. M. (2010). Differentiating the underrepresented: Physics opportunities for Bronx high school students in a university setting. In H. Oluseyi (Ed.), *2009 American Institute of Physics Conference Proceedings Series: Vol. 1280. Joint Annual Conference of the National Society of Black Physicists and the National Society of Hispanic Physicists* (pp. 176-181). Melville, NY: American Institute of Physics.
- [2] Chen, J., Shankar, S., Kelly, A. M., Gningue, S., & Rajaravivarma, R. (2009). A two-stage approach for contiguous sequential pattern mining. *Proceedings of the 2009 IEEE International Conference on Information Reuse and Integration* (pp. 382-387), Las Vegas, NV.
- [1] Chen, J., Shankar, S., Kelly, A. M., Gningue, S., & Rajaravivarma, R. (2009). An adaptive bottom-up clustering approach for web news extraction. *Proceedings of the Eighteenth Wireless and Optical Communications Conference* (pp. 1-5), Newark, NJ.

**Book Chapters**

- [3] Kelly, A. M. (2013). Promoting the physical sciences among middle school urban youth through informal learning experiences. In M.S. Khine & S.M. Issa (Eds.), *Approaches and Strategies in Next Generation Learning Science* (pp. 184-204). Hershey, PA: IGI Global.
- [2] DelliCarpini, M., Cutler, C., Gulla, A. N., Kelly, A. M., Shiller, J., & Smith, J. (2012). Teacher education that works: Collaboration between TESOL and content-based education faculty to better prepare future teachers. In A. Cohan & A. Honigsfeld (Eds.), *Breaking the Mold of Education for Culturally and Linguistically Diverse Students* (pp. 219-227). Lanham, MD: Rowman & Littlefield.
- [1] Kelly, A. M. (2005). Integrating reading, language arts, and science. *Houghton Mifflin Science Professional Development Handbook: Grades 3 and 4* (pp. 51-64). Boston, MA: Houghton Mifflin.

**Commissioned Research Report**

- [1] Kelly, A. M., Gningue, S., Chen, J., Shankar, S., & Rajaravivarma, R. (2009). *Research into outcomes and trends of NSF STEM education grants at the City University of New York*. Research report commissioned by the CUNY Office of Academic Affairs and Vice Chancellor Gillian Small (99 pages).

**PROFESSIONAL HONORS – TEACHING**


---

<i>State University of New York Chancellor's Award for Excellence in Teaching</i>	2015-16
<i>Outstanding Teacher Award, Teachers College, Columbia University</i>	2006

**PROFESSIONAL HONORS – SCHOLARSHIP**


---

<i>Best Diversity Paper, American Society of Engineering Education, Women in Engineering Division</i>	2018
<i>Featured Article, September Issue of Science Scope</i>	2017
<i>Alumni Spotlight, Spring Issue of Teachers College Mathematics, Science &amp; Technology Newsletter</i>	2015
<i>Featured Article, April Issue of The Physics Teacher</i>	2011
<i>Provost's Faculty Recognition Award for Excellence in Scholarship &amp; Research, Lehman College, CUNY</i>	2010
<i>Editors' Choice Honors, Spring Issue of Academic Exchange Quarterly</i>	2010
<i>Salute to Scholars Certificate of Recognition, Chancellor of the City University of New York</i>	2010
<i>Faculty Fellowship Publication Program, City University of New York</i>	2008-09

**INVITED TALKS/COLLOQUIA (NATIONAL)**

- 
- [22] *Social Cognitive Perspective of Gender Disparities in Undergraduate Physics*. (2017, February). Winter Meeting of the American Association of Physics Teachers, Atlanta, GA.

**National Invited Talks (continued)**

- [21] Sheppard, K., McCarthy, R., **Kelly, A. M.**, & Drees, A. (2017, February). *Physics Teacher Preparation at Stony Brook University*. Presentation at the Physics Teacher Education Coalition Conference [PhysTEC], Atlanta, GA. Abstract published in *Bulletin of the American Physical Society*, 62(2).
- [20] *Social Cognitive Perspective of Women's Participation in Physics: Improving Accessibility throughout the Pipeline*. (2017, January). April Meeting of the American Physical Society Committee on the Status of Women in Physics, Washington, DC. Abstract published in *Bulletin of the American Physical Society*, 62(1).
- [19] *Recruiting, Retaining and Outreach to Underrepresented High School Teachers*. (2015, July). Summer Meeting of the American Association of Physics Teachers, College Park, MD.
- [18] *Physics Teachers' Perspectives on Factors that Affect Urban Physics Participation and Accessibility*. (2015, January). Winter Meeting of the American Association of Physics Teachers, San Diego, CA.
- [17] *Programmatic Impacts of Local Secondary STEM Policy*. (2012, September). The Council for Opportunity in Education's 31<sup>st</sup> Annual Conference, New York, NY.
- [16] *Identifying Pre-College STEM Opportunity to Learn*. (2012, September). The Council for Opportunity in Education's 31<sup>st</sup> Annual Conference, New York, NY.
- [15] *Teachers' Roles in Expanding Physics Participation Among Urban Students*. (2012, July). Summer Meeting of the American Association of Physics Teachers, Philadelphia, PA.
- [14] *Equity Data on Secondary Physics in U.S. Schools: Urban and Suburban Perspectives*. (2012, February). Physics Teacher Education Coalition Conference [PhysTEC], Ontario, CA.
- [13] *Accessibility and Participation in Secondary Physics: Diverging Views of Physics Teachers and School Administrators*. (2011, September). Joint Annual Conference of the National Society of Black Physicists and the National Society of Hispanic Physicists, Austin, TX.
- [12] *Physics in Urban Secondary Schools: Preparing Teachers and Promoting Equity*. (2010, November). Chemistry & Physics Department, Chicago State University, Chicago, IL.
- [11] *The Challenges of Teaching Physics in Urban Secondary Schools*. (2010, September). Graduate School of Education, Rutgers University, New Brunswick, NJ.
- [10] Bradley, D. T., & **Kelly, A. M.** (2010, April). *Vassar College - Bronx Institute Acoustics Workshop for Low-Income, Ethnic Minority, Urban High School Students*. Presentation at the 159<sup>th</sup> Meeting of the Acoustical Society of America, Baltimore, MD. Abstract published in *Journal of the Acoustical Society of America*, 127(3), 1946.
- [9] *Teachers as Agents of Change in Transforming Urban Physics Education*. (2010, April). Physics Education Research Group, Florida International University, Miami, FL.
- [8] *Teaching Physics in Urban Schools: Challenges and Solutions for Broadening Participation*. (2010, February). Physics Teacher Education Coalition Conference [PhysTEC], Washington, DC.
- [7] *Issues and Challenges for Diversity in Physics from the K-12 Arena*. (2009, February). Physics Diversity Summit, Nashville, TN.
- [6] *Inequities in Physics Access and Enrollment in Urban High Schools*. (2008, July). Physics Education Research Conference, University of Edmonton, Alberta, Canada.
- [5] *Activism Through Research: Inequitable Physics Access and Proposed Policy Reforms*. (2008, July). Plenary Bridging Session of the Annual Conference of the American Association of Physics Teachers and the Physics Education Research Conference, University of Edmonton, Alberta, Canada.
- [4] *Urban Youth and Access to High School Physics: Issues, Inequities, and Policies*. (2008, February). Joint Annual Conference of the National Society of Black Physicists and the National Society of Hispanic Physicists, Washington, DC.
- [3] *No Child Left Behind, Diversity, and Access to K-12 Science*. (2008, February). The Physics Diversity Summit, Capitol Hill, Washington, DC.
- [2] *Inequities in Physics Access for Students in Urban Secondary Schools*. (2007, November). The 154<sup>th</sup> Meeting of the Acoustical Society of America, New Orleans, LA. Abstract published in *Journal of the Acoustical Society of America*, 122(5), 2986-2987.
- [1] *Issues of Equity in Physics Access and Enrollment in NYC Public High Schools*. (2007, June). The American Institute of Physics Advisory Liaison Committee on Underrepresented Minorities, The American Center for Physics, College Park, MD.

**Invited National Conference Panel Participation**

- [5] *How Communities Can Better Support Women in Physics*. (2017, January). American Physical Society April Meeting, Washington, DC.
- [4] *Engineering and Engineering Applications in STEM*. (2013, March). Brookhaven National Laboratory Career Advancement in a Research Environment (CARE) Conference, Upton, New York.
- [3] *Closing Session of the Physics Education Research Conference*. (2008, July). The Physics Education Research Conference, University of Edmonton, Alberta, Canada.
- [2] *Activism through Research: Inequitable Physics Access and Proposed Policy Reforms*. (2008, July). The Plenary Bridging Session of the Annual Conference of the American Association of Physics Teachers and the Physics Education Research Conference, University of Edmonton, Alberta, Canada.
- [1] *Education in Acoustics: Professional Development for K-12 Science Teachers*. (2007, November). The 154<sup>th</sup> Meeting of the Acoustical Society of America, New Orleans, LA.

**INVITED TALKS/COLLOQUIA (REGIONAL)**

- 
- [16] *Next Generation Science Standards: Broadening Opportunities for the Integration of Science and Engineering Education in K-12 Schools*. (2018, May). Department of Technology & Society, College of Engineering and Applied Sciences, Stony Brook University, Stony Brook, NY.
  - [15] **Kelly, A. M.**, & London, B. (2018, March). *Research in Engineering Education*. Engineering Education for a Technology-Driven Society Conference, College of Engineering and Applied Sciences, Stony Brook University, Stony Brook, NY.
  - [14] *Physics Education as an Interdisciplinary Career: Pathways and Challenges*. (2017, November). Women in Science and Engineering Program, William Paterson University, Wayne, NJ.
  - [13] *Cultural and Institutional Challenges in Improving Undergraduate Physics Instruction*. (2017, November). Annual Meeting of the American Physical Society Mid-Atlantic Section, Newark, NJ. Abstract published in *Bulletin of the American Physical Society*, 62(19).
  - [12] *Equitable Participation in Physics: Improving Accessibility through the Pipeline*. (2016, July). Collegiate Science and Technology Entry Program, Stony Brook University, Stony Brook, NY.
  - [11] *A Sociocognitive Perspective of Women's Participation in Physics: Improving Accessibility throughout the Pipeline*. (2016, January). Barnard College Robert Noyce Teacher Education Scholar Program STEM Colloquium, Barnard College, New York, NY.
  - [10] **Kelly, A. M.**, & London, B. (2014, July). *Diversity and Inclusive Teaching*. STEM Teaching Summer Institute, Stony Brook University, Stony Brook, NY.
  - [9] **Kelly, A. M.**, Nehm, R., & Sheppard, K. (2014, July). *Prior Knowledge in STEM: Implications for Teaching and Learning*. STEM Teaching Summer Institute, Stony Brook University, Stony Brook, NY.
  - [8] *The Intersection of Physics and Education: Implications for Research and Teaching*. (2014, April). The Society of Physics Students, Stony Brook University, Stony Brook, NY.
  - [7] *Physics Education as an Interdisciplinary Career and Research Field*. (2014, January). East Coast Conference on Undergraduate Women in Physics, Stony Brook University, Stony Brook, NY.
  - [6] *Active Learning and Instructional Reforms in the Physics Classroom*. (2013, December). Department of Physics & Astronomy Colloquium Series, Stony Brook University, Stony Brook, NY.
  - [5] *Equity Data on Secondary Physics in U.S. Schools: Urban and Suburban Perspectives*. (2013, March). Women in Science & Engineering, Stony Brook University, Stony Brook, NY.
  - [4] *Elementary Science Education: Preparing Students for 21<sup>st</sup> Century Innovation*. (2013, January). Harbor Country Day School, Stony Brook, NY.
  - [3] *Secondary Physics in U.S. Schools: Urban and Suburban Perspectives*. (2011, November). World of Physics Colloquium Series, Stony Brook University, Stony Brook, NY.
  - [2] *Physics in Secondary Schools: Research on Factors Impacting Accessibility*. (2011, March). Department of Physics & Astronomy Colloquium, Stony Brook University, Stony Brook, NY.
  - [1] *Models of Pedagogical Content Knowledge in an Urban Summer Chemistry Program*. (2008, November). The Responsive Research Network, Hunter College, City University of New York.

## PEER REVIEWED NATIONAL CONFERENCE PAPERS (UNPUBLISHED)

- [28] Nehmeh, G.,\* & Kelly, A. M. (2018, April). *Self-Determination of Women as Underrepresented Minorities in Undergraduate Physical Science*. Paper presented at the Annual Conference of the American Educational Research Association, New York, NY.
- [27] Sasway, H. M.,\* & Kelly, A. M. (2018, January). *Community College Students' Interest and Motivation to Study Science*. Paper presented at the Annual Conference of the Association of Science Teacher Education, Baltimore, MD.
- [26] Kelly, A. M., & Nehmeh, G.\* (2017, August). *Physics Teacher Isolation in Urban Schools*. Paper presented at the European Science Education Research Association Conference, Dublin, Ireland.
- [25] O'Brien, S.,\* & Kelly, A. M. (2017, April). *Master Teachers' Topic-Specific Pedagogical Content Knowledge (TSPCK) of Electrochemistry*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, San Antonio, TX.
- [24] Sasway, H. M.,\* & Kelly, A. M. (2017, April). *Factors that Influence Community College Students' Interest in Science Coursework*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, San Antonio, TX.
- [23] Wortel-London, S. B.,\* & Kelly, A. M. (2017, April). *I Like STEM, But Am I a STEM Person? Effects of Informal Learning and Mentors on STEM Identity*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, San Antonio, TX.
- [22] Wortel-London, S. B.,\* Kelly, A. M., & Groome, M. (2016, April). *Recruiting STEM Graduate Students for K-12 Education: Development of an Instrument for Identifying Candidates*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Baltimore, MD.
- [21] Bugallo, M. F., Kelly, A. M., & Ha, M. (2015, April). *Research on Impacts of an Electrical Engineering Summer Program for High School Students*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Chicago, IL.
- [20] Silvernail, D., Macdonald, M., Johnson, A., Contino, J., Cooke-Nieves, N., Kelly, A. M., Gupta, P., Fayne, H., & Wallace, J. (2015, April). *When the Informal Becomes Formal in the Higher Education Preparation of Science Teachers*. Paper symposium presentation at the Annual Conference of the National Association of Research in Science Teaching, Chicago, IL.
- [19] Hantz, C.,\* & Kelly, A. M. (2014, March). *Earth Science Curricular Reform in Secondary Education: A Systems-Based Approach*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Pittsburgh, PA.
- [18] Kiely, J.,\* Kelly, A. M., La Magna, K., Moloney, D. J., & Bynum, R. D. (2014, March). *Research on Impacts of University-Based Biotechnology Teaching Laboratories on Teacher Professional Development and Student Outcomes*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Pittsburgh, PA.
- [17] McHugh, L.,\* & Kelly, A. M. (2014, March). *Impacts of a Middle School Mathematics-Science Integration Program*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Pittsburgh, PA.
- [16] Kelly, A. M., & Sheppard, K. (2014, January). *Physics Coursetaking, Teacher Recruitment, and Resource Allocation: Implications for Policy and Practice*. Paper presented at the Annual Conference of the Association of Science Teacher Education, San Antonio, TX.
- [15] Kiely, J.,\* Kelly, A. M., La Magna, K., Moloney, D., & Bynum, R. D. (2014, January). *Biotechnology Teaching Laboratories: University Outreach for Science Teacher Professional Development and Advanced STEM Learning*. Paper presented at the Annual Conference of the Association of Science Teacher Education, San Antonio, TX.
- [14] Qian, G., Kelly, A. M., & Gningue, S. M. (2012, April). *Understanding Noyce Scholars' Epistemological Beliefs about Teaching and Learning Science and Mathematics*. Paper presented at the Annual Conference of the American Educational Research Association, Vancouver, British Columbia.
- [13] Kelly, A. M. (2012, March). *Science Teachers' Views of Factors that Affect Urban Physics Accessibility and Participation*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Indianapolis, IN.
- [12] Macdonald, M. B., Kelly, A. M., Aquino-Gerard, A. E., & Bayne, G. U. (2011, April). *Why Are We Sharing our Teachers? Urban Museum and University Preparing Urban Science Teachers*. Paper presented at the Annual Conference of the American Educational Research Association, New Orleans, LA.

**National Conference Papers (continued)**

- [11] **Kelly, A. M.**, Riccio, J. F., & Baldwin, B. C. (2011, January). *Developing a Framework for Evaluating Teachers' Content Knowledge throughout Participation in Math-Science Partnerships in Two States*. Paper presented at the Annual Conference of the Association of Science Teacher Education, Minneapolis, MN.
- [10] **Kelly, A. M.**, & Smith, J. (2010, May). *Science Education and TESOL: A Collaborative Professional Development Model for Alternative Certification Teacher Induction*. Paper presented at the Annual Conference of the American Educational Research Association, Denver, CO.
- [9] Gonzalez, C.,\* & **Kelly, A. M.** (2010, March). *A Case Study of Secondary Science Teacher Career Satisfaction and Retention in an Alternative Certification Program*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Philadelphia, PA.
- [8] **Kelly, A. M.**, Gningue, S. M., Chen, J., Shankar, S., & Rajaravivarma, R. (2010, March). *Trends and Outcomes of NSF STEM Education Grants at the City University of New York: Implications for Policy, Practice, and Future Initiatives*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Philadelphia, PA.
- [7] **Kelly, A. M.**, Leventhal, A.,\* & Marcinowski Slagus, L.\* (2009, April). *Pedagogical Content Knowledge in High School Chemistry: Teacher Efficacy, High Stakes Standardized Testing, and Student Outcomes*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Garden Grove, CA.
- [6] Sheppard, K., & **Kelly, A. M.** (2009, April). *The Small Schools Movement and its Impact on Physics Education in New York City*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Garden Grove, CA.
- [5] **Kelly, A. M.**, & Sheppard, K. (2008, March). *Construction of a Latent Variable to Predict Physics Access in U.S. Urban High Schools*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Baltimore, MD.
- [4] Sheppard, K., & **Kelly, A. M.** (2008, March). *The Small Schools Movement in New York City and its Impact on Physics Education*. Paper presented at the Annual Conference of the American Educational Research Association, New York, NY.
- [3] **Kelly, A. M.** (2006, April). *Factors that Influence the Opportunity to Study Physics in New York City High Schools*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, San Francisco, CA.
- [2] **Kelly, A. M.** (2006, April). *Restructured Secondary Schools and Access to Science: The Case of Physics in New York City*. Paper presented at the Annual Conference of the American Educational Research Association, San Francisco, CA.
- [1] **Kelly, A. M.** (2005, April). *Newton in the Big Apple: Physics Enrollment in New York City High Schools*. Paper presented at the Annual Conference of the National Association of Research in Science Teaching, Dallas, TX.

**PEER REVIEWED CONFERENCE POSTERS****National and International Conference Posters**

- [12] Gatz, J.,\* & **Kelly, A. M.** (2018, April). *Predictors of Science Achievement in a Suburban Middle School: Addressing Trends in the Leaky STEM Pipeline in Early Adolescence*. Poster presented at the Annual Conference of the American Educational Research Association, New York, NY.
- [11] Slagus, L. M.,\* & **Kelly, A. M.** (2018, January). *The Impact of the Urban Advantage Initiative on Middle School Science Teachers*. Poster presented at the Annual Conference of the Association of Science Teacher Education, Baltimore, MD.
- [10] Nehmeh, G.,\* & **Kelly, A. M.** (2017, August). *Primary and University Academic Experiences of Career Women Physicists*. Poster presented at the European Science Education Research Association Conference, Dublin, Ireland.
- [9] Gatz, J.,\* & **Kelly, A. M.** (2017, May). *Dose Response Effect of Physical Activity and Behavioral Regulation Measures on the Science Achievement of At-Risk Middle School Girls*. Poster presented at Annual Conference of the American College of Sports Medicine, Boston, MA. Abstract published in *Medicine and Science in Sports and Exercise*, 49(5S), 210.
- [8] Gatz, J.,\* & **Kelly, A. M.** (2017, April). *Middle School Girls' Science Achievement and Cognition: Effects of an After School Informal Science Program*. Poster presented at the Annual Conference of the National Association of Research in Science Teaching, San Antonio, TX.

**Conference Posters (continued)**

- [7] Gearn, R.,\* **Kelly, A. M.**, & Bugallo, M. F. (2017, April). *Shifts in Students' Views Towards Engineering in an Out-of-School-Time Program*. Poster presented at the Annual Conference of the National Association of Research in Science Teaching, San Antonio, TX.
- [6] Mintz, J.,\* & **Kelly, A. M.** (2017, April). *Science Teacher and Administrator Perspectives of Teacher Evaluation Systems*. Poster presented at the Annual Conference of the National Association of Research in Science Teaching, San Antonio, TX.
- [5] Gatz, J.,\* & **Kelly, A. M.** (2016, June). *Effects of Aerobic Exercise on Cognition and Science Achievement in Middle School Girls*. Poster presented at Annual Conference of the American College of Sports Medicine, Boston, MA. Abstract published in *Medicine and Science in Sports and Exercise*, 48(5S), 1050.
- [4] Gatz, J.,\* & **Kelly, A. M.** (2016, April). *Middle School Girls' Science Motivation and Performance: Cognitive Effects of an Out-of-School-Time Program*. Poster presented at the Annual Conference of the National Association of Research in Science Teaching, Baltimore, MD.
- [3] Gatz, J.,\* **Kelly, A. M.**, Nehm, R., & Ha, M. (2015, May). *Middle School Girls' Science Attitudes and Performance: Cognitive Effects of Extracurricular Participation in Aerobic Training*. Poster presented at Annual Conference of the American College of Sports Medicine, San Diego, CA. Abstract published in *Medicine and Science in Sports and Exercise*, 48(5S), 735.
- [2] Turner-Edwards, M.,\* **Kelly, A. M.**, & Sheppard, K. (2015, April). *Science Teacher Certification, Access to Science, and Student Learning in an Urban Setting*. Poster presented at the Annual Conference of the National Association of Research in Science Teaching, Chicago, IL.
- [1] **Kelly, A. M.**, & Qian, G. (2009, July). *Mathematics and Science Teacher Education Renewal (MASTER) Program at Lehman College*. Poster presented at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.

**Local and Regional Conference Posters**

- [3] Sasway, H. M.,\* & **Kelly, A. M.** (2016, October). *Student Interest in Community College Biology Courses*. Poster presented at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Teachers College, Columbia University, New York, NY.
- [2] Issapour, M.,\* & **Kelly, A. M.** (2014, October). *Relationship of Students' Interest in Science and Performance in Engineering Curriculum*. Poster presented at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Teachers College, Columbia University, New York, NY.
- [1] Turner-Edwards, M.,\* & **Kelly, A. M.** (2014, October). *An Examination of Science Teacher Certification in an Urban Setting*. Poster presented at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Teachers College, Columbia University, New York, NY.

**PEER REVIEWED NATIONAL CONFERENCE PRESENTATIONS**

---

**National and International Conference Presentations**

- [8] **Kelly, A. M.** (2018, February). *Women in Science and Engineering (WISE): Undergraduate Academic Excellence through Curriculum, Service, Research, and Mentoring*. Presentation at the Science and Engineering for Social Good Conference, hosted by the National Center for Science and Civic Engagement, Atlanta, GA.
- [7] Sheppard, K., **Kelly, A. M.**, Padwa, L.,\* Gough, C.,\* Millman, K., & Vessalico, C. (2014, June). *Noyce Master Teachers in Science Methods Classes*. Presentation at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.
- [6] Sheppard, K., & **Kelly, A. M.** (2013, May). *A Qualitative and Quantitative Analysis of Physical Science Accessibility in High Needs Schools*. Presentation at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.
- [5] Smith, D., Rosa, K., Denisova, K., & **Kelly, A. M.** (2012, July). *Teaching Physics in Urban Schools*. Presentation at the Summer Meeting of the American Association of Physics Teachers, Philadelphia, PA.
- [4] Sheppard, K., & **Kelly, A. M.** (2012, May). *Physics and Chemistry Offerings in New York State: Enrollment, Policy, and Needs*. Presentation at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.

**National Conference Presentations (continued)**

- [3] Kelly, A. M., Gningue, S. M., Soriano, J., Hanson, K., Pantojas, N., & Abreu, R. (2011, July). *Noyce Scholars' Reflections on Teaching in High-Poverty Urban Schools: Challenges and Strategies*. Presentation at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.
- [2] Sheppard, K., & Kelly, A. M. (2011, July). *Suburban Science Education*. Presentation at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.
- [1] Qian, G., Kelly, A. M., Soriano, J., Maras, M., & Brown, W. (2010, July). *Scientists in Action: Learning and Teaching Mathematics and Science by Using Community Resources*. Presentation at the National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.

**Local and Regional Conference Presentations**

- [12] Wortel-London, S. B.,\* Kelly, A. M., & Groome, M. (2015, October). *Recruiting STEM Graduate Students for K-12 Education: Development of an Instrument for Identifying Candidates*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Teachers College, Columbia University, New York, NY.
- [11] Kelly, A. M. (2014, October). *Overcoming Inertia: Adopting Studio Physics in Undergraduate Education*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Teachers College, Columbia University, New York, NY.
- [10] Bugallo, M. F., Kelly, A. M., Winters, G., Geng, L., Urteaga, I., & Tekai, H. (2014, May). *Exploring New Horizons: Science and Engineering Everywhere, At Anytime, For Everyone*. Presentation at the SUNY Conference on Instruction and Technology, Ithaca, NY.
- [9] Sheppard, K., Kelly, A. M., Millman, K., & Vessalico, C. (2014, March). *Clinical Richness: Master Teachers in STEM Methods Courses*. Presentation at the Noyce Northeast Regional Conference. Philadelphia, PA.
- [8] Kelly, A. M. (2011, October). *Noyce Scholars' Reflections on Teaching in High-Poverty Urban Schools: Challenges and Strategies*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Black Rock Forest, Cornwall, NY.
- [7] Sheppard, K., & Kelly, A. M. (2011, October). *We Have Lift-Off: The New Doctoral Program in Science Education*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Black Rock Forest, Cornwall, NY.
- [6] Kelly, A. M. (2009, October). *A Case Study of Secondary Science Teacher Career Satisfaction and Retention in an Alternative Certification Program*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Wilkes Barre, PA.
- [5] Kelly, A. M. (2008, October). *Pedagogical Content Knowledge of Chemistry Teachers: Reflections and Outcomes*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Wilkes Barre, PA.
- [4] Kelly, A. M. (2008, April). *Urban Youth and Access to High School Physics: Issues, Inequities, and Policies*. Presentation at the 11<sup>th</sup> Annual Urban University Conference Series of the New York City Louis Stokes Alliance for Minority Participation in Science, The City College of New York.
- [3] Kelly, A. M. (2007, October). *Inequitable Access to Physics in Urban High Schools: The Impact on Science Teacher Education*. Presentation at the Annual Conference of the Association of Science Teacher Education (Northeast Division), Amherst, MA.
- [2] Kelly, A. M. (2001, May). *Using Interactive Physics in Science Instruction*. Presentation at the New Jersey Statewide Systemic Initiative, Middlesex County Community College, Edison, NJ.
- [1] Kelly, A. M. (2001, May). *Computer-Based Learning in Physics and Chemistry*. Presentation at the New Jersey Statewide Systemic Initiative, Middlesex County Community College, Edison, NJ.

**GRANT FUNDING****Multiple – Stony Brook University [SBU] (\$3,096,449)**

- [13] SUNY Excels – \$27,260  
*Stony Brook Undergraduate Physics Teaching and Learning*  
PI: A. M. Kelly; Co-PI: R. McCarthy, SBU

2018-19

**Multiple Grants (continued)**

- [12] National Science Foundation – Broadening Participation in Engineering – \$99,712 2017-20  
*ÉGALITÉ: Education, Guidance, Advancement, and Learning in Technology and Engineering*  
 [Supplemental Award – NSF 7686640]  
 PI: M. F. Bugallo, SBU; Co-PIs: A. M. Kelly, D. Ferguson, R. Kukta, SBU
- [11] National Science Foundation – Broadening Participation in Engineering – \$599,365 2017-20  
*ÉGALITÉ: Education, Guidance, Advancement, and Learning in Technology and Engineering*  
 [NSF 7686640]  
 PI: M. F. Bugallo, SBU; Co-PIs: A. M. Kelly, D. Ferguson, R. Kukta, SBU
- [10] National Grid – \$200,000 2016-20  
*National Grid/Next Generation Engineering Programs*  
 PI: M. F. Bugallo, SBU; Co-PI: A. M. Kelly
- [9] PSEG – \$109,000 2017-19  
*Women in Science and Engineering*  
 PI: M. F. Bugallo, SBU; Co-PI: A. M. Kelly
- [8] PSEG – \$50,000 2016-19  
*Inspiring Engineering Learning*  
 PI: M. F. Bugallo, SBU; Co-PI: A. M. Kelly
- [7] Center for Advanced Technology in Diagnostic Tools and Sensor Systems – \$50,000 2016-18  
*National Grid/Next Generation Engineering Programs*  
 PI: M. F. Bugallo, SBU; Co-PI: A. M. Kelly
- [6] New York Campus Compact – AmeriCorps VISTA – \$227,200 2014-18  
*Stony Brook/Community STEM Initiatives in Physics & Engineering*  
 PI: A. M. Kelly; Co-PI: M. F. Bugallo, SBU
- [5] Stony Brook University Parents’ Fund for Excellence – \$200,000 2014-18  
*Studio Physics at Stony Brook University*  
 PI: A. M. Kelly; Co-PI: R. D. Bynum, SBU
- [4] National Science Foundation – Robert Noyce Scholarship Program – \$749,487 2010-18  
*Robert Noyce Teacher Scholarship Program – Phase II*  
 [NSF 1035314]  
 PI: K. Sheppard; Co-PIs: A. M. Kelly, L. Berger, SBU
- [3] SUNY/New York Academy of Sciences STEM Mentoring Initiative – \$139,514 2013-15  
*Stony Brook STEM Mentoring Initiative*  
 [Sub-award from NSF 1223303]  
 PI: A. M. Kelly; Co-PI: M. F. Bugallo, SBU
- [2] National Science Foundation – S-STEM Scholarship Program – \$592,911 2009-15  
*Success and Diversity in Biological Sciences, Physical Sciences, and Geosciences*  
 [NSF 0849783]  
 PI: A. M. Kelly; Co-PIs: D. Ferguson, R. Lacey, D. Knopf, SBU
- [1] SUNY – Innovative Instructional Technology Grant – \$52,000 2013-14  
*Exploring New Horizons: Science and Engineering Everywhere, At Anytime, For Everyone*  
 PI: M. F. Bugallo, SBU; Co-PIs: A. M. Kelly, H. Tekai, SBU

**Individual – Stony Brook University (\$19,900)**

- [3] Presidential Mini-Grant for Departmental Diversity – \$3,200 2018-19  
*Women in Science and Engineering Speaker Series*
- [2] Stony Brook University Office of the President – \$10,700 2014-16  
*Studio Physics Evaluation*
- [1] Stony Brook TALENT (Teaching and Learning Enhancements with New Technology) – \$6,000 2014  
*Workshop Physics Educational Technology*

**Multiple – Lehman College, CUNY (\$4,099,020)**

- [4] New York State Education Department Mathematics/Science Partnership Grant – \$3,163,620 2010-13  
*Teacher Education for Advanced Science Preparation (TEASP)*  
 PI: J. Rachlin, Lehman College; Co-PI: A. M. Kelly; Institutional Partner: New York City Department of Education
- [3] National Science Foundation – Robert Noyce Scholarship Program – \$749,838 2009-13  
*Mathematics and Science Teacher Education Renewal (MASTER) Program at Lehman College*  
 [NSF 0833317]  
 PI: G. Qian, Lehman College; Co-PIs: A. M. Kelly, S. Gningue, L. Jones, Lehman College
- [2] National Science Foundation – Robert Noyce Scholarship Supplemental Grant – \$120,562 2009-13  
*Mathematics and Science Teacher Education Renewal (MASTER) Program at Lehman College*  
 [NSF 0833317]  
 PI: G. Qian, Lehman College; Co-PIs: A. M. Kelly, S. Gningue, L. Jones, Lehman College
- [1] Office of Academic Affairs of the City University of New York – \$65,000 2008-09  
*Research into Outcomes of NSF STEM Education Grants at the City University of New York*  
 PIs: A. M. Kelly & J. Chen, Queens College; Co-PIs: S. Gningue, Lehman College; S. Shankar, Hunter College; R. Rajaravivarma, New York City College of Technology

**Individual – Lehman College, CUNY (\$31,555)**

- [5] Professional Staff Congress – City University of New York Faculty Grant – \$2,925 2010-11  
*Second-Year Physics Teachers in Urban Secondary Schools: Isolation, Self-Efficacy, and Resilience*
- [4] Professional Staff Congress – City University of New York Faculty Grant – \$5,600 2009-10  
*Physics Learning Opportunities in U.S. Urban High Schools*
- [3] George N. Shuster Fellowship – \$1,530 2009  
*Science Teacher Retention in an Alternative Certification Track: Examining the New York City Teaching Fellows Program*
- [2] Responsive Research Network – Math Science Partnership (MSPinNYC) – \$17,000 2008-09  
*Chemistry Teachers' Pedagogical Content Knowledge in a Summer Program for Urban High School Students*  
 [Sub-award from NSF 0412413]
- [1] Professional Staff Congress – City University of New York Faculty Grant – \$4,500 2008-09  
*The Experiences of Underrepresented Minorities in Science-Themed Selective Urban High Schools*

**TEACHING AND COURSE DEVELOPMENT****Doctoral Science Education Courses at Stony Brook University**

- CSM 620: Science Teacher Education (F 2018, F 2015, S 2014, F 2013)  
 CSM 630: Science Education Research Methods (S 2017, S 2015, F 2014, F 2012, F 2011) – *New Course*  
 CSM 640: Directed Study in Science Education (F 2018, Su 2018, S 2018, S 2016, S 2014, S 2012)

**Undergraduate Physics Courses at Stony Brook University**

- PHY 121: Physics for Life Sciences I (S 2014, S 2013)  
 PHY 121: Physics for Life Sciences I (F 2016, F 2015) – *New Studio Model*  
 PHY 122: Physics for Life Sciences II (F 2013, F 2012)  
 PHY 122: Physics for Life Sciences II (S 2019) – *New Studio Model*  
 PHY 123: Physics for Life Sciences I Laboratory (F 2016, F 2015) – *New Studio Model*  
 PHY 125: Classical Physics A for Physical Sciences and Engineering, Lecture (S 2012)  
 PHY 125: Classical Physics A for Physical Sciences and Engineering, Recitation (S 2012)  
 PHY 131: Classical Physics I for Physical Sciences and Engineering (F 2014) – *New Studio Model*  
 PHY 132: Classical Physics II for Physical Sciences and Engineering (S 2015) – *New Studio Model*  
 PHY 133: Classical Physics I Laboratory (F 2014) – *New Studio Model*  
 PHY 134: Classical Physics II Laboratory (S 2015) – *New Studio Model*  
 PHY 475: Undergraduate Teaching Practicum (F 2016, F 2015, S 2015, F 2014, S 2014, F 2013, S 2013, F 2012)

**Graduate Science Education Courses at Teachers College, Columbia University**

- MSTC 4047: Physical Science Curriculum and Methods Laboratory (Su 2010, Su 2008, Su 2007, S 2007, Su 2006, S 2006, Su 2005, S 2005, Su 2004)

**Graduate Science Education Courses (continued)**

MSTC 4075: Concepts of Physics I (F 2006, F 2005, F 2004)

MSTC 4076: Concepts of Physics II (Su 2005)

**Graduate Science Education Courses at Lehman College, CUNY**

ESC 519: Teaching Science in Middle and High School (Su 2010, Su 2008, S 2008)

ESC 595: Internship in Classroom Teaching (F 2007)

ESC 611: Seminar in Science Education (F 2008, F 2007)

ESC 705: Research Methods in Science Education (F 2008)

ESC 707: Thesis Project Seminar II (S 2010, S 2009, S 2008, F 2007)

ESC 722: Teaching Literacy Skills in Science (Su 2011, Su 2010)

ESC 770: Advanced Methods in Teaching Science in Middle and High School (Su 2009)

ESC 771: Integrating Mathematics, Science, and Technology for Middle School Learners (S 2011, S 2010) – *New Course*

ESC 790: Seminar in Middle and High School Mathematics and Science Education (S 2010, F 2009)

**Graduate Physics Course at Lehman College, CUNY**

PHY 605: Physics for Educators, Laboratory (S 2009) – *New Course*

**Undergraduate Physics Courses at Lehman College, CUNY**

PHY 135: Fundamental Concepts and Methods of Physics, Lecture (F 2010)

PHY 135: Fundamental Concepts and Methods of Physics, Laboratory (F 2010)

**DOCTORAL ADVISEES – PH.D. IN SCIENCE EDUCATION**

- [7] Hantz, C. (2018). *The early history of Earth science education in New York State, 1865-1910*. (Doctoral dissertation). Stony Brook University, Stony Brook, NY.
- [6] Gatz, J. (2017). *Middle school girls' science motivation and performance: Cognitive effects of an out-of-school time program with nutrition and fitness components*. (Doctoral dissertation). Retrieved from ProQuest. (10280221)
- [5] Mintz, J. A. (2017). *The impacts of the annual professional performance review in New York State: Science teachers' and administrators' perspectives*. (Doctoral dissertation). Retrieved from ProQuest. (10619372)
- [4] Nehmeh, G. (2017). *Factors that influence physics access and participation throughout the pipeline*. (Doctoral dissertation). Retrieved from ProQuest. (10620942)
- [3] O'Brien, S. (2017). *Topic specific pedagogical content knowledge and chemistry teacher preparation in electrochemistry*. (Doctoral dissertation). Retrieved from ProQuest. (10619384)
- [2] Sasway, H. M. (2017). *Factors that influence community college students' interest in science coursework*. (Doctoral dissertation). Retrieved from ProQuest. (10283224)
- [1] McHugh, L. (2016). *The integration of mathematics in middle school science: Student and teacher impacts related to science achievement and attitudes towards integration*. (Doctoral dissertation). Retrieved from ProQuest. (10140739)

**Doctoral Advisees – Dissertations in Progress – Ph.D. in Science Education**

- [7] Chatham, E. *Curricular innovations to incorporate NGSS in secondary biology instruction*.
- [6] Cohen, R. *Community college STEM achievement and impacts on graduation and transfer*.
- [5] Gearn, R. *Role of school counseling in science and engineering preparation of high needs students*.
- [4] Heal, K. C. *Secondary science teacher professional development in engineering concepts and design*.
- [3] Sherwood, K. *Recruitment and retention of women in undergraduate engineering*.
- [2] Slagus, L. M. *Impacts of Urban Advantage professional development on secondary science teachers*.
- [1] Wortel-London, S. B. *STEM mentoring and student achievement in an informal science education program*.

**Dissertation Committees – Ph.D. in Science Education**

- [4] Charles, T. *The history of the Chemistry Regents Examination in New York State*.
- [3] Greengold, S. *Chemistry teachers' conceptions about chemical equilibrium in terms of rates of reaction*.
- [2] Lynch, T. *Acceleration for all in science*.
- [1] Wankmuller, R. *Stuck in the middle: Middle school science and the Next Generation Science Standards*.

**Dissertation Committee – Ph.D. in Technology, Policy, and Innovation**

- [1] Fernández, R. E. (2016). *A quantitative policy analysis of Bronx County public high school students' mathematics course completion*. (Doctoral dissertation). Retrieved from ProQuest. (10190778).

**SELECT MASTER'S THESIS ADVISEES AT LEHMAN COLLEGE, CITY UNIVERSITY OF NEW YORK**

- [8] Kennedy-Shaffer, R. (2010). *Teaching Newton's laws to urban middle school students in a college-based science enrichment program*. Unpublished master's thesis, Lehman College, City University of New York, NY.
- [7] Chen, J. L. (2009). *The chair conformations and structural properties of cyclohexanes*. (Unpublished master's thesis). Lehman College, City University of New York, NY.
- [6] Gonzalez, C. (2009). *Science teacher retention in New York City public schools*. (Unpublished master's thesis). Lehman College, City University of New York, NY.
- [5] Leventhal, A. (2009). *Pedagogical content knowledge (PCK) in high school chemistry: Teacher efficacy through questioning*. (Unpublished master's thesis). Lehman College, City University of New York, NY.
- [4] Marcinowski Slagus, L. (2009). *The use of analogies in a high school chemistry program*. (Unpublished master's thesis). Lehman College, City University of New York, NY.
- [3] Roth, M. L. (2009). *Teaching gas laws in a private school setting*. (Unpublished master's thesis). Lehman College, City University of New York, NY.
- [2] Schultz, D. A. (2009). *A history of the change in the definition of educational success in the New York City Public School System as seen through the lens of Central Park East Secondary School*. (Unpublished master's thesis). Lehman College, City University of New York, NY.
- [1] Wisniewski, D. J. (2009). *Using evolution court cases to learn about science and society*. (Unpublished master's thesis). Lehman College, City University of New York, NY.

**PROFESSIONAL PEER REVIEW SERVICE**

Editorial Review Board, <i>Journal of Science Teacher Education</i>	2018-21
Reviewer, <i>The Review of Higher Education</i>	2018-present
Reviewer, <i>Assessment in Education: Principles, Policy, and Practice</i>	2017-present
Reviewer, <i>Journal of Computer Assisted Learning</i>	2017-present
Reviewer, <i>PLOS ONE, Public Library of Science</i>	2017-present
Reviewer, <i>Journal of Education for Students Placed at Risk</i>	2016-present
Reviewer, <i>Psychology of Women Quarterly</i>	2016-present
Reviewer, <i>School Science and Mathematics</i>	2014-present
Reviewer, <i>Physical Review Physics Education Research</i>	2013-present
Reviewer, <i>Journal of Science Education and Technology</i>	2010-present
Reviewer, <i>Journal of Research in Science Teaching</i>	2008-present
Annual Conference Proposal Reviewer, National Association of Research in Science Teaching	2005-present
Reviewer, <i>Integrated STEM Education Conference (ISEC) Proceedings</i>	2014
Reviewer, <i>Physics Education Research Conference Proceedings</i>	2014
Reviewer, <i>Effective Practices in Preservice Physics Teacher Education</i> (Edited Volume)	2013

**PROFESSIONAL AFFILIATIONS**

American Physical Society  
 Association for Science Teacher Education  
 European Science Education Research Association  
 National Association of Research in Science Teaching  
 Physics Teacher Education Coalition