

# STEPHANIE BRIANNE WORTEL-LONDON

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- EDUCATION: **Stony Brook University**, Doctor of Philosophy in Science Education, expected January 2017  
**Lehman College**, Master of Science in Science Education, May 2009  
**Colgate University**, Bachelor of Arts in Astronomy-Physics, May 2006
- DISSERTATION: **Informal Learning and Mentoring Experiences: Measuring the Impacts on STEM Identity and Content Knowledge in Underrepresented Learners**
- MASTERS THESIS: **Developing Methodologies for Assessing Interest in Science Careers in Informal Environments**
- HONORS:
- **Catalyzing Advocacy in Science and Engineering Workshop, AAAS**, Stony Brook University, Spring 2016
    - Chosen to represent Stony Brook at AAAS workshop designed to inform scientists about science policy development at the federal level
    - Held meetings with the staff of Representative Lee Zeldin, Senator Charles Schumer, and Senator Kirsten Gillibrand on Capitol Hill, advocating for the importance of informal education research for underrepresented learners in STEM
  - **Graduate Student Travel Scholarship**, Association for Science Teacher Education-NE Region, Fall 2015
    - Awarded to offset travel to international ASTE conference on the strength and novelty of author's conference presentation proposal abstract
  - **Howard Hughes Medical Institute Science Education Fellowship**, Stony Brook University, Fall 2013
    - Given by the Institute for Science Technology Engineering and Mathematics Education to doctoral students active in conference presentations and the pursuit of publications
  - **1819 Award**, Colgate University, Spring 2006
    - Top Student Award, most prestigious and selective given by the university
    - Given annually to the one senior who best exemplifies leadership, scholarship, and "the spirit that is Colgate"
- WORK EXPERIENCE:
- **New York Academy of Sciences, Director of Education**, New York 8/16 — Present
    - Lead the *1000 Girls, 1000 Futures* STEM mentoring program for high school aged women and female STEM professionals from around the world, bolstered by rigorous online coursework that focuses on college and career readiness, as well as Soft Skills and 21st Century Skills development
    - Oversee the development of other international, one-on-one virtual STEM mentoring programs
    - Coordinate and maintain relationships with international and domestic partners in programming
    - Maintain budgets and assemble proposals for new partnerships and new programming
  - **American Museum of Natural History MAT Residency Program, Adjunct Professor**, NY, NY 12/15 — Present
    - Co-teach a nine-session, 3-credit Space Systems course for residents preparing for an Earth Science certificate and a Master's degree. The course is held on Fridays from December through March.
    - Co-design curriculum for each session with a PhD Astronomer to build Pedagogical Content Knowledge
  - **New York Academy of Sciences, Education Program Manager**, New York 6/11 — 7/16
    - Recruit and train more than 1,000 science grad students to teach afterschool in high need middle schools
    - Mentor novice science educators and develop hands on, inquiry-based science curricula
    - Coordinate and maintain relationships with more than seventy afterschool program locations
    - Assist Senior Vice President for Education with new program design and implementation
  - **New York Academy of Sciences, Science Writer**, New York 1/11 — 1/13
    - Compose entertaining articles on current science and technology news from the internet
    - Interpret scientific news for an audience including educators and researchers
  - **American Museum of Natural History Youth Initiatives Dept., Educator**, NY, NY 8/09 — 6/12
    - Teach astrophysics module to summer session Lang Teams 11 and 12 (Sixth/Seventh Grade)
    - Teach biweekly Saturday classes with Lang Team 10 (Seventh/Eighth Grade)
    - Design and co-instruct Solar System Course for NASA Student Research Mentoring Program
    - Design and instruct twelve session Astrobiology Course for high school students
    - Design and teach 3 or 5 day per week astrophysics courses for students Pre-K through 6<sup>th</sup> grade.
  - **BeeTutored, Math, Science, and SAT Tutor**, NY, NY 6/09 — 12/10
    - Work individually with over twenty students from second to twelfth grade levels
    - Developed study skills and test taking strategies for elementary through pre-calculus level mathematics, chemistry, earth science, biology, physics, SAT and school entrance exams
  - **AMNH Y.I. Department, Interim Manager of Adventures in Science Camps**, NY, NY 4/10 — 7/10

- Supervise weeklong summer camps grade offered on topics from animation to astrophysics
  - Assist instructors in curriculum development for summer programming for Pre-K to 8<sup>th</sup> grade
  - Provide administrative support for student enrollment, supplies acquisition, and staff payroll
- AMNH Y.I. Department, Weekend Saltz Internship Coordinator, NY, NY 6/09 — 8/09**
- Assist weekday Saltz coordinator with planning and leading training week and Monday meetings
  - Provide mentorship and teambuilding experiences for the high school explainer cart interns
  - Encourage interns to embody science inquiry as enterprise for the curious and passionate
- AMNH Center for Lifelong Learning, Consultant, NY, NY 4/09 — 7/09**
- Consult on the published educator guide for *Journey to the Stars* Hayden Planetarium show
  - Meet with curator and production staff to interpret space show concepts for educators
- Leadership Institute High School, Earth Science Teacher, South Bronx, NY 8/07 — 6/09**
- Certified to teach Tenth and Eleventh Grade Earth Science under the Initial Teaching Certificate
  - Selected as member of New York City Teaching Fellows Cohort 14
- AMNH Astrophysics Department, Research Assistant, NY, NY 1/07 —6/07**
- Compute Spitzer infrared data for photometry of brown dwarf stars
  - Analyze echelle spectra of planetary nebula for radial velocity periods using IRAF software
- Colgate University Astronomy Program, Student Researcher, Hamilton, NY, Summers 2004, 2005**
- Take scientific observations of a dozen quasars to build light curves of magnitude variations
  - Compile archival data and new research by programming in FORTRAN on a Linux machine
  - Lead community outreach “tours of the sky” and help visitors operate 16” optical telescope

#### CERTIFICATES:

**Dimensions of Success Observer Certificate**, earned 11/12  
Harvard Program in Education, Afterschool & Resiliency

**New York State Secondary Science Teaching License, Earth Science**, earned 6/09  
New York State Education Department

#### CONFERENCE PAPERS:

**Recruiting STEM graduate students for K-12 education: Development of an instrument for identifying candidates (2016)**  
Stephanie B. Wortel, Angela M. Kelly, Meghan P. Groome, Minsu Ha  
National Association for Research in Science Teaching. Baltimore, MD.

#### PUBLICATIONS:

**Exploring the transition from special to general relativity**  
*American Journal of Physics*, 77, 434-437 (2009)

**The bizarre spectral variability of central stars of planetary nebulae**  
*arXiv preprint astro-ph/0709.1508v1* (2007)

**Two examples of circular motion for introductory courses in relativity**  
*American Journal of Physics*, 75, 1123-1133 (2007)

**The unprecedented optical outburst of the quasar 3C 454.3: The WEBT campaign of 2004-2005**  
*Astronomy & Astrophysics*, 453, 817-822 (2006)

**Optical variability of the blazar 3C 454.3: Long-term behavior and the dramatic 2005 outburst**  
*American Astronomical Society Meeting Abstracts# 207. 207* (2006)

**Looking into the past: Extending the known variability of the quasars 3C273 and 3C279**  
*Undergraduate Symposium on Research in Astronomy*, 1, 76 (2004)

#### CONFERENCES:

Stephanie Wortel, Meghan Groome, Johanna Duncan-Poitier, Philip Ortiz, Gaylen Moore, Gwendolyn Elphick, Kristian Breton (2016). **Finding Scale: The Role of Research in Revising Program Design and Supporting Local Innovation.**  
National Association for Research in Science Teaching. Baltimore, MD.

Stephanie Wortel, Angela Kelly, Meghan Groome (2015). **Recruiting STEM Graduate Students for K-12 Education: Development of an Instrument for Identifying Candidates.** Association for Science Teacher Education--Northeast Regional Meeting. Columbia Teachers College, New York, NY.

Stephanie Wortel, Meghan Groome, Kris Breton (2015). **The Afterschool STEM Mentoring Program: Applying Clinical Practices to Improve Scientists' Teaching.** Association for Science Teacher Education--Northeast Regional Meeting. Columbia Teachers College, New York, NY.

Stephanie Wortel, Kris Breton (2015). **Connecting Underserved Youth to STEM Career Pathways.**  
National Science Teachers Association. Chicago, IL.

Stephanie Wortel, Kris Breton (2014). **STEM Experts Mentoring Youth.** SXSW Edu. Austin, TX.

Stephanie Wortel (2014). **Science Researchers' Perspectives on K-12 Science Teaching Before and After Clinical Teaching Experiences.** 100kin10 Annual Summit. San Francisco, CA.

Stephanie Wortel (2013). **STEM Graduate Student Views of Teaching**. Association for Science Teacher Education--  
Northeast Regional Meeting. Black Rock Forest, Cornwall, NY.

Stephanie Wortel, Candace Reyes (2013). **STEM in Afterschool: Increasing System Capacity Through Partnership**.  
National Afterschool Association. Indianapolis, IN.

Stephanie Wortel, Kris Breton, Brian Levine, Darlene Cavalier (2013). **Beyond Career Day: Integrating STEM  
Professionals into the Science Classroom**. National Science Teachers Association. San Antonio, TX.