

## Gina M. Quan

### Present Address

082 Regents Drive  
College Park, MD 20782  
(408)823-0123

### Education

#### University of Maryland, College Park

Ph.D. Physics (Expected)

(Fall 2012-Present)

#### University of California, Berkeley

B.A. Physics with High Honors

(Spring 2012)

GPA: 3.76

### Research Experience

#### Graduate Research Assistant

(Fall 2012 - Present)

University of Maryland, College Park

*Supervisors: Professor Andrew Elby, Professor Ayush Gupta*

#### I-RISE Scholar

(August 2012)

Seattle Pacific University

*Supervisor: Dr. Rachel Scherr*

#### Research Assistant

(Fall 2011- Spring 2012)

University of California, Berkeley

*Supervisors: Professor Randi A. Engle, Professor Andrea A. diSessa, Dr. Angela Little*

Thesis "Model<sup>3</sup>: Modeling Students' Models of Physics Models"

#### REU Intern

(Summer 2011)

University of Washington

*Supervisors: Professor Paula Heron, Professor Peter Shaffer, Professor Lillian McDermott*

Project: Investigating Student Understanding of Heat and Temperature

#### Research Assistant

(Summer 2009- Fall 2010)

University of California, Berkeley

*Supervisor: Professor Alex Zettl*

### Teaching Experience

#### Teaching Assistant

(Fall 2012 - Summer 2014)

*University of Maryland, College Park*

- UNIV100: The Physics Student in the University
- PHYS299B: Developing a Physics Toolbox
- Summer Girls Physics Summer Camp

#### Student Teacher

(Spring 2011- Fall 2011)

*Berkeley High School, El Cerrito High School*

<b>Publications</b>	<b>Quan, G.,</b> Elby, A., (2015) <i>Connecting self-efficacy and nature of science shifts in undergraduate research experiences</i> . Submitted to 2015 PERC Proceedings.
	<b>Quan, G.,</b> Gupta, A., (2015) <i>Tensions in the Productivity in Design Task Tinkering - Fundamental</i> In 122th ASEE Annual Conference and Exposition. Seattle: American Society of Engineering Education. Retrieved from <a href="http://www.asee.org/public/conferences/56/papers/12561/view">http://www.asee.org/public/conferences/56/papers/12561/view</a>
	<b>Quan, G.,</b> Gupta, A., & Elby, A. (2015) <i>Problematizing Best Practices for Pairing in K-12 Student Design Teams</i> In 122th ASEE Annual Conference and Exposition. Seattle: American Society of Engineering Education. Retrieved from <a href="http://www.asee.org/public/conferences/56/papers/12565/view">http://www.asee.org/public/conferences/56/papers/12565/view</a>
	<b>Quan, G.,</b> Gupta, A., (2014) <i>Finding Productivity in Design Task Tinkering</i> . In Polman, J. L., Kyza, E. A., O'Neill, D. K., Tabak, I., Penuel, W. R., Jurow, A. S., O'Connor, K., Lee, T., and D'Amico, L. (Eds.). (2014). <i>Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS) 2014</i> , Volume 3 (1607-1608). Boulder, CO: International Society of the Learning Sciences.
<b>Invited Presentations</b>	<b>National Society of Black Physicists 2015 Winter Meeting</b> (February 2015) <i>How Undergraduate Student Research Experiences Impact Students' Participation in Physics</i>
	<b>PERL @ Michigan State University Seminar</b> (September 2014) <i>Unpacking Partnership in an Arduino Environment</i>
	<b>American Physical Society (APS) April 2012 Meeting</b> (April 2012) <i>Students as Colleagues: An Examination of Teacher-Student Collaboration in Improving Educational Environments</i>
<b>Contributed Presentations</b>	<b>AAPT 2015 Summer Meeting</b> (July 2015) <i>How Undergraduate Research Experiences Support More Central Participation in Physics</i>
	<b>American Society of Engineering Education Annual Conference</b> (June 2015) <i>Tensions in the Productivity in Design Task Tinkering - Fundamental</i> (Peer Reviewed)
	<b>American Society of Engineering Education Annual Conference</b> (June 2015) <i>Problematizing Best Practices for Pairing in K-12 Student Design Teams - Fundamental</i> (Peer Reviewed)
	<b>AAPT 2015 Winter Meeting</b> (January 2015) <i>How Student Research Experiences Shape Perceptions of Scientists</i>
	<b>AAPT 2014 Summer Meeting</b> (July 2014) <i>Research on Productive Tinkering in an Arduino Environment</i>
	<b>AAPT 2013 Summer Meeting</b> (July 2013) <i>Research on Building Supportive Undergraduate Communities through Physics Seminars</i>
	<b>AAPT 2012 Summer Meeting</b> (August 2012) <i>Modeling Consensus: Understanding how Undergraduate Freshmen Define Physics Model</i>
<b>Contributed Posters</b>	<b>Physics Education Research Conference 2015</b> (July 2015) <i>Connecting Self-Efficacy and Nature of Science Shifts in Undergraduate Research Experiences</i>
	<b>Physics Education Research Conference 2014</b> (July 2014) <i>Investigating Access to and Attitudes toward Programming in a Physics Camp</i>
	<b>International Conference of the Learning Sciences 2014</b> (July 2014) <i>Finding Productivity in Design Task Tinkering</i> (Peer Reviewed)
	<b>Physics Education Research Conference 2013</b> (July 2013) <i>Variation in Student Self-Reports of Study Group Experiences</i>

	<b>Physics Education Research Conference 2012</b> (August 2012) <i>Characterizing Consensus about the Definition of a Physics Model</i> <b>AAPT 2012 Winter Meeting</b> (February 2012) <i>Building Together: An Undergraduate Freshman Class Defines Physics Model</i>
<b>Awards</b>	<b>NSF Graduate Research Fellowship Program-</b> Honorable Mention (Spring 2014) <b>Department Service Award-</b> Recipient (May 2012) <b>Dean's List-</b> Recipient (Fall 2011) <b>IBM Thomas J. Watson Scholarship -</b> Recipient (Fall 2008-Spring 2012)
<b>Service</b>	<b>PERLOC Representative</b> (Elected) (Spring 2015 - Present) <i>Physics Education Research Leadership and Organizing Council</i>  <b>Publicist</b> (Elected) (Summer 2013 - Spring 2015) <i>PER Consortium of Graduate Students</i>  <b>Committee Member</b> (Elected) (Spring 2014 - Present ) <i>UMD Physics Graduate Committee</i>  <b>Mentor</b> (Spring 2013 - Present) <i>UMD Women in Physics</i>  <b>Academic Activities Chair</b> (Summer 2009- Spring 2011) <i>The Compass Project</i>  <b>President</b> (Summer 2011- Spring 2012) <i>Society of Physics Students at Berkeley</i>  <b>Undergraduate Internal Evaluator</b> (Fall 2011- Spring 2012) <i>Berkeley Physics Departmental Review</i>  <b>Swing Dance Instructor</b> (Spring 2009- Fall 2011) <i>UC Berkeley SwingCal</i>
<b>Memberships</b>	<b>The Access Network-</b> Core Organizer and Founding Member (Summer 2014 - Present) <b>International Society of the Learning Sciences-</b> Member (Spring 2014 - Present) <b>American Association of Physics Teachers-</b> Member (Fall 2011-Present) <b>American Society of Engineering Education-</b> Member (Fall 2014-Present) <b>American Physical Society-</b> Member (Fall 2011-Present)
<b>Reviewer</b>	<b>Physical Review Special Topics - Physics Education Research</b> <b>American Society of Engineering Education Proceedings</b> <b>Physics Education Research Conference Proceedings</b>
<b>Skills</b>	Proficient in Matlab, Java, LabView, L <sup>A</sup> T <sub>E</sub> X, Adobe Photoshop.