

Maria (Mia) Ong, Ph.D.

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Professional Preparation

Swarthmore College	Soc/Anth	B.A., High Honors	1994
University of California, Berkeley	Education	Ph.D.	2002
Wellesley College	Sociology	Post-Doc	2002-3
Harvard University	Education	Post-Doc	2003-5

Work Experience

Technical Education Research Centers, Inc. (TERC), Education Research Collaborative. Senior Research Scientist. Served as Principal Investigator or Co-Principal Investigator for seven National Science Foundation-funded projects focused on diversity and achievement in STEM higher education. Served as Lead Evaluator for three NSF or NIH-funded projects. Published numerous peer-reviewed articles and reports, organized and hosted the national Mini-Symposium on Women of Color in STEM (Arlington, VA, 10/28-29/09), and presented findings on Swedish National Radio and at over 125 conferences, including 25 keynote or invited talks (see below). 8/08 – present. Supervisor/President: Laurie Brennan, 617.873.9600.

TERC, Office of the President. Interim Diversity, Equity, and Inclusion Officer. Coordinated and led workshops on anti-bias and anti-racism; established and directed undergraduate internship for underrepresented and first-generation students. 3/17 – 8/18. Supervisor/President: Laurie Brennan, 617.873.9600.

TERC, Center for School Reform. Project Leader. Served as Principal Investigator or Co-Principal Served as investigator for two National Science Foundation-funded projects focused on diversity and achievement in STEM higher education. Served as Senior Research Analyst on MSPnet. 6/05 – 8/08. Supervisor: Brian Drayton, 617.873.9600.

Sokendai, The Graduate University for Advanced Studies, Hayama, Japan. Senior Researcher. Performed instrument development, data collection, and analysis for the Digital Archives Oral History Project of Women and Foreign Scientists. 6/06 – 9/06. Supervisor: Sharon Traweek, 310.825.4601.

Harvard Graduate School of Education. Education Postdoctoral Fellow and Instructor. Taught “Social Inequality and Schools.” Published peer-reviewed article in top-five sociology journal. 9/03 - 6/05. Supervisor: Sara Lawrence Lightfoot, 617-496-4837.

Wellesley College, Sociology Department. Consortium for a Strong Minority Presence in Liberal Arts Colleges Postdoctoral Fellow and Instructor. Taught “Gender, Science, and Technology” and “Sociology of Education” courses. 8/02 - 6/03. Department Chair: Jonathan Imber, 781-283-2139.

U.C. Berkeley, Center for Studies in Higher Education. Senior Researcher. Re-designed protocols, interviewed participants, and performed reliability checks on study examining the career of minority and female STEM Ph.D. recipients. 5/00 – 7/02. Supervisor: Anne MacLachlan, 510.643.8397.

Swarthmore College, Department of Education. Visiting Professor. Taught “Educational Psychology.” 9/99 – 12/99. Department Chair: Eva Travers, 610.328.8344.

U.C. Berkeley, Coalition for Excellence and Diversity in MSE. Member. Director, NSF/AMP-sponsored Physics Scholars Program. Coordinated and directed activities to promote underrepresented undergraduate students in physics and engineering. 6/96 – 9/99; 1/00 - 5/00. Chair: Caroline Kane, 510.642.4118.

Swarthmore College, Department of Mathematics and MathForum.net. Assistant Researcher. Wrote synopses of current research literature on mathematics education and facilitated online discussions. 6/94 – 6/95. Supervisor: K. Ann Renninger, 610.328.8347.

Work Experience (Continued)

Independent Consultancies: Consultant, National Center for Women & Information Technology Social Science Advisory Board Consultant Services, 6/10 – present; Independent External Evaluator, The City College New York NIH Minority Undergraduate Biomedical Engineering Program, 3/05 - 8/11; Consultant, Franklin W. Olin College of Engineering, Study on Project-Based Learning in Undergraduate Engineering, 6/03 – 5/05.

Federal Advisory Committees and Other Affiliations

Women of Color in Computing Researcher/Practitioner Collaborative, Kapur Center and Center for Gender Equity in Science and Technology, Arizona State University. Senior Fellow. 10/18 – present.

American Institute of Physics, The AIP National Task Force to Eliminate African American Underrepresentation in Physics & Astronomy (TEAM-UP). Member. 10/17 - present

The Center for Gender Equity in Science and Technology, Arizona State University. Advisory Board Member. 7/15 – present.

The National Center for Women & Information Technology. Member of the Social Science Advisory Board (SSAB). 3/08 – present. SSAB Co-Chair. 5/17 – 5/19.

The Civil Rights Project (CRP)/*Proyecto Derechos Civiles* at UCLA, The Project for Science and Engineering Equity and Diversity. Founder and Director. 8/05 – present.

The NSF Committee on Equal Opportunities in Science and Engineering (CEOSE). Member. Led CEOSE's authoring of its ten recommendations to NSF for promotion of women of color in STEM. 2/08 – 1/14.

The Advisory Committee for Social, Behavioral, and Economic Sciences. Member and CEOSE Liaison. Chair of the SBE Subcommittee on the Science and Practice of Broadening Participation in STEM. 10/09 – 11/13.

United States Delegation, 4th and 2nd International Union of Pure and Applied Physics International Conference on Women in Physics. Delegate. Stellenbosch, South Africa and Rio de Janeiro, Brazil, respectively. 2/11 – 8/12; 5/05 – 8/06.

The STEM Women of Color Conclave. Advisory Board Member. 3/10 – 6/10.

The Advisory Committee for GPR Performance Assessment. Member and CEOSE Liaison. 1/09 – 12/09.

Peer-Reviewed Publications (Selected)

Ong, M., Smith, J. M., & Ko, L. T. (2018). Counterspaces for women of color in STEM higher education: Marginal and central spaces for persistence and success. *Journal of Research in Science Teaching*, 55(2), 206-245.

Johnson, A., **Ong, M.**, Ko, L. T., Smith, J., & Hodari, A. (2017). Common challenges faced by women of color in physics, and actions faculty can take to minimize those challenges. *The Physics Teacher*, 55(6), 356-360.

Blair, E. E., Miller, R. B., **Ong, M.**, & Zastavker, Y. V. (2017). Undergraduate STEM instructors' teacher identities and discourses on student gender expression and equity. *J. of Engineering Education*, 106(1), 14-43.

Ong, M., Ko, L. T., and Hodari, A. K. (2016). Agency of women of color in STEM: Individual and institutional strategies for persistence and success. In E. H. Branch (Ed.), *Pathways, potholes, and the persistence of women in science: Reconsidering the pipeline* (pp. 183-195). Lanham, MD: Lexington Books.

Hodari, A. K., **Ong, M.**, Ko, L. T., and Smith, J. (2016). Enacting agency: The strategies of women of color in computing. *Computing in Science and Engineering Journal*, 18(3): 58-68.

Peer-Reviewed Publications (Continued)

- Kachchaf, R., Ko, L., Hodari, A., and **Ong, M.** (2015). Career-life balance for women of color: Experiences in science and engineering academia. *Journal of Diversity in Higher Education*, 8(3), 175-91.
- Hodari, A. K., **Ong, M.**, Ko, L. T., and Smith, J. (2015). Enabling courage: Agentic strategies of women of color in computing. *Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)* (pp. 1-7). Piscataway, NJ: IEEE.
- Hodari, A. K., **Ong, M.**, Ko, L. T., & Kachchaf, R. (2014). New enactments of mentoring and activism: U.S. women of color in computing education and careers. *ICER '14 Proceedings of the tenth annual conference on international computing education research* (pp. 83-90). New York, NY: ACM.
- Ko, L. T., Kachchaf, R. R., Hodari, A. K., and **Ong, M.** (2014). Agency of women of color in physics and astronomy: Strategies for persistence and success. *Journal of Women and Minorities in Science and Engineering* (20)2, 171-95.
- Ong, M.** (2013). Advancing women of color in science academia and professions: Successful individual and institutional strategies. In (B. Cunningham, Ed.), *Women in physics: Fourth IUPAP International Conference on Women in Physics, AIP conf. proc., 1517* (p. 184). Melville, NY: American Institute of Physics.
- Coble, K., Cunningham, B., Freeland, E., Hodapp, T., Hodari, A. K., Ivie, R., Martinez-Miranda, L., **Ong, M.**, ... & White, H. (2013). Many steps forward, a few steps back. In (B. Cunningham, Ed.), *Women in physics: Fourth IUPAP International Conference on Women in Physics, AIP conf. proc., 1517* (pp. 162-163). Melville, NY: American Institute of Physics.
- Ko, L.T., Kachchaf, R.R., **Ong, M.**, and Hodari, A.K. (2013). Narratives of the double bind: Intersectionality in life stories of women of color in physics, astrophysics and astronomy. In *2012 Physics Education Research Conference, 1513*(1), 222-225. Melville, NY: American Institute of Physics.
- Ong, M.**, Wright, C., Espinosa, E., & Orfield, G. (2011). Inside the double bind: A synthesis of empirical research on undergraduate and graduate women of color in science, technology, engineering, and mathematics. *Harvard Educational Review*, 81(2), 172-208.
- Ong, M.** (2011). The status of women of color in computer science. In *Communications of the ACM*, 54(7), 32-34.
- Ong, M.** (2008). Challenging cultural stereotypes of 'scientific ability.' In M. Pollock (Ed.), *Everyday Antiracism: Getting Real about Race in School* (pp. 114-119). New York: New Press.
- Ong, M.** (2007). Sowing the seed of diversity. *Interactions across Physics and Education*, 37(3), 26-27.
- Laughlin, C., Zastavker, Y. V., & **Ong, M.** (2007). Is integration really there? Students' perceptions of integration in their project-based curriculum. *2007 37th annual Frontiers in Education conference: Global engineering: Knowledge without borders - opportunities without passports (FIE proceedings)*. Piscataway, NJ: IEEE.
- Zastavker, Y.V., **Ong, M.**, & Page, L. (2006). Women in engineering: Exploring the effects of project-based learning in a first-year undergraduate engineering program. *36th annual Frontiers in Education conference (FIE proceedings)*. Piscataway, NJ: IEEE.
- Budil, K. S., Daniels, K. E., Daniels-Race, T., Eblen-Zayas, M., Hartline, B. K., Hazeltine, R., Hodari, A. K., Horton, K. R., Ivie, R., Kay, L. Martínez-Miranda, L. J., Michelman-Ribeiro, A., **Ong, M.**... & Zastavker, Y. V. (2005). Women in physics in the United States: A progress report. In B. K. Hartline and A. Michelman-Ribeiro, (Eds.), *Women in physics: Second IUPAP International Conference on Women in Physics, AIP conf. proc., 795* (pp. 175-178). Melville, NY: American Institute of Physics.
- Ong, M.** (2005). Body projects of young women of color in physics: Intersections of gender, race, and science. *Social Problems*, 52(4), 593-617.

Other Significant Publications (Selected)

- Committee on Equal Opportunities in Science and Engineering. (2014). *Broadening participation in America's STEM workforce: 2011-2012 biennial report to Congress*. Arlington, VA: NSF.
- Espinosa, L. & Ong, M. (2012). The experience of women of color in STEM. In *100 Women Leaders in STEM* (pp. 12-14). Washington, DC: STEMConnector.org.
- Social, Behavioral, and Economic Sciences Advisory Committee (2011). *The Social, Behavioral, and Economic Sciences Advisory Committee futures report* (report to the National Science Foundation SBE Directorate). Arlington, VA: National Science Foundation.
- Committee on Equal Opportunities in Science and Engineering. (2011). *Broadening participation in America's STEM workforce: 2009-2010 biennial report to Congress*. Arlington, VA: NSF.
- Ong, M. (2010). *The mini-symposium on women of color in science, technology, engineering, and mathematics: A summary of events, findings and suggestions*. Cambridge, MA: TERC.
- Committee on Equal Opportunities in Science and Engineering. (2009). *Broadening participation in America's STEM workforce: 2007-2008 biennial report to Congress*. Arlington, VA: NSF.
- The Advisory Committee for the GPRA Performance Assessment. (2009). *Report of the Advisory Committee for the GPRA Performance Assessment: FY2009*. Arlington, VA: NSF.
- Ong, M. (2005). Understanding the dearth of women in science. *Harvard Community Resource*, 7/1, 3.
- Ong, M. (2001). Playing with in/visibility: How minority women gain power from the margins of science culture. *Women in Higher Education*, 10(11), 42-44.

Over 140 total conference papers delivered between 6/99 and 7/19.**Keynote, Plenary, and Invited Appearances (Selected)**

- National Center for Women in Information Technology, Social Science Advisory Board Meeting. *Literature synthesis of women of color in technology and computing: Methods and early findings*. Plenary speaker. Nashville, TN. 5/19.
- National Academies of Science, Engineering and Medicine, Addressing the Underrepresentation of Women in Science, Engineering, and Medicine: A National Academies Symposium Highlighting Evidence-Based Interventions. *Career-life balance for women of color in science and engineering academia*. Invited Speaker. Washington, D.C. 3/19.
- Harvard University, The Women in STEM Cooperative, The Next 10 Years: Helping STEM Students Thrive Webinar Series. *Women of color in engineering higher education: Institutional barriers and institutional strategies for retention*. Invited Speaker. Cambridge, MA. 3/19.
- Arizona State University and Kapor Center for Social Justice, Women of Color in Computing Collaborative Senior Fellows Webinar. *Native American women in computing and technology*. Invited Speaker. Tucson, AZ. 3/19.
- University of Colorado at Boulder, CU Café Seminar Series. *Experiences of intersectionality for women of color in STEM: Individual and institutional strategies for persistence and success*. Invited Speaker. Boulder, CO. 10/18.
- National Academies Committee on Women in Science Engineering, and Medicine, Women of Color in STEM Workshop. *Recommendations to Retain and Advance Women of Color in STEM: Individual and Institutional Strategies*. Invited Speaker. Washington, DC. 11/17.
- Harvard University, Harvard-Smithsonian Center for Astrophysics, Banneker & Aztlán Institute. *Intersectionality for women of color in STEM: Strategies for persistence and success*. Invited Speaker. Cambridge, MA. 8/17.
- Brown University, Center for the Study of Race + Ethnicity in America. *Experiences of intersectionality for women of color in STEM: Individual and institutional strategies for persistence and success*. Invited Speaker. Providence, RI. 4/17.

Keynote, Plenary, and Invited Appearances (Continued)

- Brown University. *Advancing women of color through STEM education & careers: Institutional strategies for success*. Invited Speaker. Providence, RI. 4/17.
- Brown University, Annenberg Institute for School Reform. *STEM education research and policy: Implications and actions*. Invited Speaker. Providence, RI. 4/17.
- League of European Research Universities – Lund University Gender Conference 2016, Implementation of a Critical Diversity Perspective in STEMM-Academia. *The accidental research activist: One scholar's path in (slowly) reforming practice and policy for equity and diversity in STEM*. Keynote Speaker. Lund, Sweden. 10/16.
- American Society for Microbiology, ASM MICROBE Conference 2016. *How far have we come? A brief summary of 40 years of empirical research on women of color in STEM education and careers*. Invited Speaker. Boston, MA. 6/16.
- White House Roundtable on Inclusive STEM Education hosted by Arizona State University's Center for Gender Equity in Science and Technology & The White House Council on Women and Girls. *The personal is institutional: Fostering the success of women of color in STEM*. Invited Speaker. Washington, DC. 7/15.
- National Diversity Equity Workshop hosted by The Open Chemistry Collaborative in Diversity Equity. *Be the difference: Institutional strategies for promoting the success of women of color in STEM*. Plenary Speaker. Arlington, VA. 4/15.
- Society of Women Engineers. *Beyond lip service: Recommendations for women of color in engineering and their institutions*. Invited Speaker. Baltimore, MD. 10/13.
- American Institutes for Research. *A 'chilly climate' for underrepresented minority students and professionals in STEM*. Invited Speaker. Washington, D.C. 9/13.
- Institute for Women's Policy Research, Conference on Accelerating Change for Women of Color in STEM: Policy, Action, and Collaboration. *Improving the status of women of color faculty in STEM: Policy recommendations for systemic change*. Invited Speaker. Washington, D.C. 5/13.
- STEM Women of Color Conclave. *Listening for success: Strategies that enable women of color to advance in STEM*. Keynote Speaker. Atlanta, GA. 6/11.
- Joint Meeting of Women in Engineering ProActive Network and National Association of Multicultural Engineering Program Advocates. *Advancing the status of women of color in STEM: Strengths, challenges, and the national imperative*. Keynote Speaker. Baltimore, MA. 4/10.
- Interferometric Investigations of Physical Knowledges and Gender in the Making Symposium. *Changing ways in becoming a physicist*. Plenary Speaker. Stellenbosch University, Stellenbosch, Sweden. 9/11.
- Sveriges Radio (Swedish National Public Radio) "Science Friday" Programs. Invited Guest. Discussed gender and science in U.S. physics. Retrieved from <http://sverigesradio.se/sida/artikel.aspx?programid=406&artikel=4686621>. 9/11.
- The Mini-Symposium on Women of Color in STEM. *Findings from the Inside the Double Bind synthesis project: Empirical research on women of color in STEM, 1970 - 2008*. Plenary Speaker. Arlington, VA. 10/09.
- NSF ADVANCE Meeting, Session on Women of Color in STEM. *Empirical research on women of color in STEM careers*. Invited Speaker. Alexandria, VA. 11/10.
- American Chemical Society (ACS) 240th National Meeting, Award Symposium in Honor of Robert L. Lichter. *Promoting the status of women of color in STEM: Strengths, challenges, and strategies*. Invited Speaker. Boston, MA. 8/10.
- National Symposium for the Advancement of Women in Science. *Keeping women in science: Tightening the leaky pipeline*. Invited Speaker. Harvard University, Cambridge, MA. 4/05.

Grant Awards

- Technical Education Research Centers, Inc. Internal Grant (TERC-17484), *Multiple Intersectionality among Faculty in STEM: An Arts-Informed Exploratory Study* (with N. Jaumot-Pascual). 8/19 – 7/20.
- Women of Color in Computing Researcher/Practitioner Collaborative, CGEST & Kapor Center, Grant Award, *Native American Women and Two-Spirit Individuals in Computing: A Photoelicitation Study* (with N. Jaumot-Pascual). 2/19-1/20.
- NSF/ECR Core Grant Award (HRD-1760845), *Literature Analysis and Synthesis of Women of Color in Technology and Computing* (with N. Jaumot-Pascual). 7/18 – 6/20.
- NSF/REE Grant Award (EEC-1427129), *Engineering Beyond the Double Bind: Women of Color in Engineering Education and Careers*. 9/14 – 2/17.
- NIH/IMSD Grant Award (1R25GM099649-01), *University of Massachusetts – Amherst Initiative to Maximize Student Development* (with D. Fisher & S. Petersen). 9/13 – 1/17.
- NSF/CISE Grant Award (CNS-1240768), *Computing Beyond the Double Bind: Women of Color in Computing Education and Careers* (with A. K. Hodari). 1/13 – 12/16.
- NSF/AGEP Grant Award (AGEP-1111219), *University of Massachusetts – Amherst New England Alliance for Graduate Education and the Professoriate Evaluation* (with D. Fisher & S. Petersen). Independent External Evaluator. 7/11 – 6/12.
- NSF/REESE Grant Award (DRL-0909762), *Beyond the Double Bind: Women of Color in STEM* (with A. K. Hodari). 8/09 – 7/14.
- NSF/OIA Grant Award (OIA-0953861), *Mini-Symposium on Women of Color in STEM*. 9/09 – 6/11.
- NSF/REESE Grant Award (DRL-0635577), *Inside the Double Bind: A Synthesis of Literature on Women of Color in STEM* (with G. Orfield). 10/06 – 12/09.
- NSF/GSE Grant Award (GSE-0624738), *Does Project-Based Learning Matter to Undergraduate Women in Engineering?* (with Y. Zastavker). 9/06 – 8/11.
- Spencer Foundation Grant Award, *Diversifying Engineering through Gateway Courses: Assessment of Project-Based Learning in Undergraduate Physics, Mathematics, and Engineering* (with Y. Zastavker). 9/05-8/06.

Other Awards (Selected)

- Women of Color in Computing Researcher/Practitioner Collaborative, CGEST & Kapor Center, Senior Fellowship Award. *Strategies for Persistence for Native American Women in Computing and Technology Higher Education*. 10/18.
- 2012 Physics Education Research Conference (PERC) Proceedings Paper Award. 1/13.
- Frontiers in Education Benjamin J. Dasher Best Paper Award. 8/06.
- Harvard University Graduate School of Education Postdoctoral Fellowship on Education. 8/03 – 6/05.
- Consortium for a Strong Minority Presence in Liberal Arts Colleges Postdoctoral Fellowship (Wellesley College). 8/02 - 7/03.
- University of California President's Dissertation-Year Fellowship. 9/01 - 8/02.
- National Science Foundation – University of California, Berkeley Program in the Social Studies of Science and Technology Fellowship. 9/01 – 8/02.
- American Educational Research Association Fellowship. 8/00 - 7/01.
- Spencer Foundation – U.C. Berkeley Center for Research in Education and Work Fellowship. 9/99 - 8/00.
- U.S. Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. 6/98.

Community Service (Selected)

Peer-reviewed manuscripts: University of Illinois Press; *International Journal of STEM Education*, *Journal of Engineering Education*, *Journal of Women and Minorities in Science and Engineering*, *Science Education*, *Social Problems*, *IEEE Technology and Society Magazine* (special issue on women and minorities in engineering); *Cultural Studies of Science Education*; and *Advancing Women in Science: An International Perspective* (Eds. W. Pearson, L. Frehill, & C. McNeely) (1). 3/03 – 4/19.

Peer-reviewed proposals: NSF/SBE (ad hoc); NSF/REE (panel review); NSF/CISE (ad hoc); Sloan Foundation (ad hoc); NSF/MPS (ad hoc); NSF/OISE (ad hoc); NSF/ADVANCE (2 review panels), NSF/CISE (review panel). 3/08 – 5/18.

Peer-reviewed programs: Member of the Site Visit Committee at the University of California at Santa Cruz, The American Physical Society Committee on the Status of Women in Physics and the Committee on Minorities; Member of the Site Visit Committee at MIT, The American Physical Society Committee on the Status of Women in Physics and the Committee on Minorities; NSF/CISE reverse site visit; NSF/CISE site visit. 10/09-11/18.

Served as Advisor: ARROWS: Advance, Recruit, Retain & Organize Women in STEM, Boston University, 6/18 – present; UMass ADVANCE (6/18 – present); Broad Institute of MIT and Harvard Diversity Initiative (3/14 – present); American Association of University Women (8/14 – 3/15); Institute for Women's Policy Research (2/13 – 11/13); COMPUGIRLS Project (PI: K. Scott, NSF/GSE, 10/11 – 9/14); Learning from Small Numbers Project (PI: A. Pawley, NSF/CAREER, 9/10 – 8/14).

Served as Supervisor/Mentor: Project work (3-5 staff, 6/06 – present); the TERC Postdoctoral Fellowship Program (2 fellows, 9/11 – 8/13; 1 fellow, 9/15 - present); NARST Mentoring Program (3/14); and Harvard Graduate School of Education Master's Program (3 students, 8/03 – 6/05).

Organized STEM Diversity and Inclusion Gatherings:

Lead organizer and host, Project SEED National Symposium, *Promoting Educational Equity and Diversity in Science, Technology, Engineering, and Mathematics* (Harvard University, Cambridge, MA, 1/05).

Lead organizer and host, *The Mini-Symposium on Women of Color in STEM* (Arlington, VA, 10/09).

Co-founder, Society for Women in the Physical Sciences (University of California, Berkeley, 9/97).