ADAM V. MALTESE

School of Education
W. W. Wright Building, Room 3054
Indiana University
201 North Rose Avenue
Bloomington, IN 47405

amaltese@indiana.edu
Ph: 812.856.8059
Fax: 812.856.8116
Cell: 812.606.1829

EDUCATION

UNIVERSITY OF VIRGINIA — Charlottesville, VA
Ph.D. in Science Education — May 2008

Dissertation Title: Persistence in Science, Technology, Engineering & Mathematics (STEM): An Investigation of the Relationship between High School Experiences in Science and Mathematics and College Degree Completion in STEM Fields

UNIVERSITY OF CONNECTICUT — Storrs, CT
M.S. in Geology — May 2003

HAMILTON COLLEGE — Clinton, NY
B.A. in Geology, Minor in Anthropology — May 1997

EMPLOYMENT EXPERIENCE

INDIANA UNIVERSITY — Bloomington, IN
Associate Professor of Science Education — July 2014-Present
Adjunct Faculty in Geological Sciences

Teaching Experience

- Exploring Secondary Science Teaching (Undergraduate/Graduate)
- Demonstration and Field Strategies in Science (online; Graduate)
- University Science Teaching (Doctoral Seminar)
- Science Education Research Seminar (Doctoral Seminar)
- Our Habitable Planet (Undergraduate – Geological Sciences)
- Introduction to Environmental Field Methods (*planned*; Undergraduate – Geological Sciences)

Assistant Professor of Science Education — 2008-2014

UNIVERSITY OF VIRGINIA — Charlottesville, VA
Research Assistant for Robert H. Tai — Fall 2005-Spring 2008

- *Project Crossover* (NSF REC 0440002) – studying transition from student to scientist
- *Accelerated Longitudinal Study for Learning & Youth Evaluation Center* (NSF DRL 0748041) – investigating middle school student interest level in science; in coordination with the Exploratorium (San Francisco, CA)

Teaching Experience

- Field Projects: Science/Math — Spring 2007 & 2008
- Teaching of Elementary Science — Fall 2005 & 2007

CAMP DRESSER & MCKEE — Cambridge, MA
Geologist — 2003 - 2005

- Led numerous multi-day field assignments including drilling observation and well installation, groundwater and surface water sampling, and excavation oversight
- Worked with senior staff on development of remediation strategies for soil and water

BRUNSWICK SCHOOL — Greenwich, CT
Middle School Science Teacher — 1999 - 2003

- Developed and taught 6th Grade earth science curriculum
- Updated and taught 8th Grade physical science curriculum
- Incorporated technology in teaching using SMART Board™, data probes, and online chat
- Co-leader in creation of Middle School Science Fair

PUBLICATIONS

JOURNAL PUBLICATIONS *(PEER REVIEWED)*

[**R** USED TO DESIGNATE PAPERS AS RESEARCH, **T** AS TEACHING, *STUDENT CO-AUTHORS*]

20) **Maltese, A. V.**, *Harsh, J.*, & Svetina, D. (2015). Interpretation of graphical representations along the novice – expert continuum. *Journal of College Science Teaching 45*(1). **[R]**

19) Börner, K., **Maltese, A. V.**, Balliet, R., & Heimlich, J. (2015). Data Visualization Literacy: Can 273 Science Museum Visitors Read 20 Information Visualizations? *Information Visualization.* DOI: 10.1177/1473871615594652 **[R]**

18) **Maltese, A. V.**, Danish, J., Bouldin, R., *Harsh, J.* & *Bryan, B.* (2015). What are students doing during lecture? Evidence from new technologies to capture student activity. *Journal of Research and Method in Education*. DOI: 10.1080/1743727X.2015.1041492 **[R]**

17) Balliet, R., Riggs, E. M. & **Maltese, A. V.** (2015). Students' problem solving approaches for developing geologic models in the field. *Journal of Research in Science Teaching*. DOI: 10.1002/tea.2123 **[R]**

16) **Maltese, A. V.**, *Melki, C. S.*, & *Wiebke, H.* (2014). The nature of experiences responsible for the generation and maintenance of interest in STEM. *Science Education, 98*(6), 937–962. **[R]**

15) **Maltese, A. V.**, Ross, H. A., *Wang, L.* & *Wang, Y.* (2014). Assessing Multinational Interest in STEM: Implementing a comparative survey research study in China. *International Journal of Chinese Education, 3*(2014) 109-131. DOI 10.1163/22125868-12340032 **[R]**

14) *Timme, N., Baird, M., Bennett, J., Fry, J., Garrison, L.*, & **Maltese, A. V.** (2013, May). A Summer Math and Physics Program for High School Students. *The Physics Teacher, 51*(5) 280-285. **[R/T]**

13) **Maltese, A. V.**, *Balliet, R.*, & Riggs, E. M. (2013). Through their eyes: Tracking the gaze of students in a geology field course. *Journal of Geoscience Education, 61*(1) 81-88. **[R]**

12) **Maltese, A. V.**, Tai, R.H., & Fan, X. (2012). When is homework worth the time? Evaluating the association between homework and achievement in high school science and math. *The High School Journal, 96*(1) 52-72. **[R]**

11) *Harsh, J.*, **Maltese, A. V.**, & Tai, R. H. (2012). A perspective of gender differences in chemistry and physics undergraduate research experiences. *Journal of Chemical Education, 89,* 1364-1370. dx.doi.org/10.1021/ed200581m **[R]**

10) **Maltese, A. V.** & Hochbein, C. (2012). The consequences of school improvement: Examination of the association between school improvement and student science achievement. *Journal of Research in Science Teaching, 49*(6) 804-830. **[R]**

9) *Bennett, J., Fry, J. Timme, N.*, & **Maltese, A. V.** (2012, March/April). Lessons learned from a summer preparatory program on foundations in physics and calculus. *Journal of College Science Teaching, 41*(4), 52-56. **[T]**

8) **Maltese, A. V.** & Tai, R.H. (2011). Pipeline Persistence: The effects of school experiences on earning degrees in STEM. *Science Education, 95*(5) 877-907. **[R]**

7) *Harsh, J.*, **Maltese, A. V.**, & Tai, R. H. (2011). Undergraduate Research Experiences from a longitudinal perspective. *Journal of College Science Teaching, 41*(1) 84-91. **[R]**

6) **Maltese, A. V.**, Tai, R. H., & Sadler, P. M. (2010). The effect of high school physics laboratories on performance in introductory college physics. *The Physics Teacher, 48*(5) 333-337. **[R]**

5) **Maltese, A. V.** & Tai, R. H. (2010). Eyeballs in the fridge: Sources of early interest in science. *International Journal of Science Education, 32*(5) 669-685. **[R]**

4) **Maltese, A. V.** (2009, April/May). Shake, rattle and hopefully not fall. *Science and Children, 46*(8*),* 40-43. **[T]**

3) **Maltese, A. V.**, Dexter, K. M., Tai, R. H., & Sadler, P. M. (2007). Breaking from tradition: Unfulfilled promises of block scheduling in science. *Science Educator, 16*(1), 1-7. **[R]**

2) Tai, R. T., Sadler, P. M., & **Maltese, A. V.** (2007). A study of the association of autonomy and achievement on performance. *Science Educator, 16*(1), 22-28. **[R]**

1) Tai, R. T., Liu, C. Q., **Maltese, A. V.**, & Fan, X. T. (2006, May 26). Planning early for careers in science. *Science, 312* (5777), 1143-1144. **[R]**

Book Chapters (Peer Reviewed)

Maltese, A. V. & *Harsh, J. A.* (2015). Pathways of entry into STEM across K–16. In K. A. Renninger, M. Nieswandt, & S. Hidi (Eds.), Interest and the Self in K-16 Mathematics and Science Learning. Washington, DC: American Educational Research Association. **[R]**

Maltese, A. V., Lung, F., Potvin, G. & Hochbein, C. D. (2014). STEM Education in the United States. In B. Freeman, S. Marginson, & R. Tytler (Eds.), *The Age of STEM: Educational policy and practice across the world in Science, Technology, Engineering and Mathematics* (pp. 102-133). New York: Routledge. **[R]**

Manuscripts Under Review or In Preparation

Melki, C. S. & **Maltese, A. V.** (In Review). STEM Pathways: Do men and women differ in why they enter and exit? *Journal of Research in Science Teaching.* **[R]**

Porter, M., Peterson, M., Bennett, J., Buell, R., Fry, J., Garrison, G., Hobbs, C., Lara, M., Rynkiewicz, E., Timme, N., Whittington, D. & **Maltese, A. V.** (In Review). Addition of chemistry and biology to the foundations of science and mathematics summer preparatory program at Indiana University: Inquiry-based curriculum development and student evaluations. *Journal of STEM Education.* **[R/T]**

Maltese, A. V. & Hochbein, C. (In Preparation). STEM Factories – A study of high school and community factors associated with producing STEM degrees. **[R]**

Park Rogers, M. A., *Wiebke, H. L.*, **Maltese, A. V.**, *Harsh, J. A., Weiland, I. S., Melki, C. S.* (In Preparation). Getting to the CoRe of It! Scaffolding Undergraduates Understanding of Geology Using Content Representation Matrices. **[R]**

REPORTS & REVIEWS

Maltese, A. V. (2013). Book review of *Is American Science in Decline? Science Education, 97*(3), 494-496. **[R]**

Maltese, A. V., Lung, F., Potvin, G., & Hochbein, C. (2013). STEM Education in the United States. Australian Council of Learned Academies for *Securing Australia's Future*. Available from: http://www.acolasecretariat.org.au/ACOLA/PDF/SAF02Consultants/Consultant Report - US.pdf **[R]**

FUNDING

RESEARCH

National Science Foundation — Pending
MAKEval: Creating a set of tools to evaluate making programs for youth [PI] — $800,000

National Science Foundation — 2015-2017
Measuring and Visualizing STEM Pathways [PI] — $149,000

Google Sponsorship — 2015-2016
"Making" STEM pathways [PI] — $150,000

National Science Foundation (DUE-1140445, with supplement) — 2012-2016
US-MORE – research to investigate the variation in experiences and outcomes in undergraduate research in the fields of chemistry and physics. [PI] — $238,000

National Science Foundation (DRL-1223698) — 2012-2014
Informal Science Education Pathways: Sense-Making of Big Data – research to investigate how children and adults interact with visual representations of large data sets within various informal education setting. [Co-PI] — $250,000

S. D. Bechtel Jr. Foundation — 2011-2015
Spark to Flame – research study to investigate student engagement in STEM longitudinally across grades 3 through 12. [Co-PI] — $600,000

Faculty Research Support Program (IU Internal) — 2013
Assessing Multinational Interest in STEM – funding to survey international sample of students regarding the development and maintenance of their interest in STEM. [PI] — $70,000

Maris M. Proffitt and Mary Higgins Proffitt Endowment Grant (IU Internal) 2012-2013
Funding for research on student entry and persistence in STEM using multiple federal data sets. [PI] $19,000

U.S. Department of Education 2010-2012
Chicago Public Schools - Science and Math Engagement Initiative. [Evaluator] $134,000

National Aeronautics and Space Administration 2009-2012
Chicago Public Schools - Capstone Course for Space Science. [Evaluator] $107,000

Faculty Research Support Program (IU Internal) 2010-2011
Getting to the CoRe of It! Transforming Preservice Teachers' Learning of Science – funding to investigate impact of synthesis strategies on content learning in geology. [Co-PI] $34,000

Indiana Education Database Grant Program (IU Internal) 2010-2011
Funding for research to investigate the progression of students from high school to college and from college to graduate school in STEM disciplines. [PI] $15,000

Maris M. Proffitt and Mary Higgins Proffitt Endowment Grant (IU Internal) 2009-2011
Funding for research investigating the understanding and creation of graphs and tables used to represent data in the Geosciences. [PI] $38,000

Declined External Funding Proposals

National Science Foundation 2014
Studying and improving data visualization literacy using Macroscopes [Co-PI] $2,231,000

National Science Foundation - *Declined* 2013
CAREER: Assessing Multinational Interest in STEM [PI] $813,000

National Science Foundation - *Declined* 2011
Using STEM to Collaboratively Investigate Global Climate Change, its Local Impacts and Potential Mitigation Strategies [PI] $1.2 M

National Science Foundation - *Declined* 2011
Techno-Watersheds: Use of Real-Time Environmental Data as a Focus for Inquiry-Based Science Education [Co-PI] $1.2 M

TEACHING

Faculty Learning Community – Learning Analytics 2014-2015
$2000

Faculty Learning Community – Transforming Undergraduate STEM Education 2013-2014
$750

Faculty Learning Community – Second Life 2011-2012
Award from Learning Technologies group within University Information Technology Services to develop Second Life as part of online archaeology/geology course for educators $750

Summer Instructional Development Fellowships 2011
Award from Center for Innovative Teaching & Learning to develop online Archaeology/geology course for educators $8000

Innovative Pedagogies Initiative – School of Education 2011
Award for exploring use of blogs, wikis and social media tools in classes $500

SmartBoards for Science and Art Education 2010
Award for the purchase and installation of SmartBoards to be used with pre-service teachers $5000

New IDEA Grant 2009
Award from School of Education to develop online course for teaching biology/geology/ecology outdoors $5000

AWARDS

American Educational Research Association Dissertation Grant 2007-2008
Funding for dissertation research using NELS:88 data set to investigate student persistence in STEM $13,790

INVITED TALKS / WORKSHOPS / CONFERENCES

Symposium on STEM Education in Asia and the United States [Organizer] October 2014
Beijing, China

Big Data: What's In It For High School Students? December 2013
Invited panelist for online conference for NSF's CS10K initiative
Session archived here: http://bit.ly/big_data_event

Using Research Findings on Interest Generation to Help Us Provide Equal Access to Quality STEM Experiences – NSF STEM Smart Conference, Baltimore, MD March 2013

Assessing Data Interpretation Skills Using Multiple Methods June 2012
NetSciEd Satellite Symposium, Northwestern University

AERA Conference on Interest and Self-Concept of Ability in K-16 Mathematics and Science Learning - Swarthmore College May 2012

Before Proposing to 'Change the Equation' We Should Know All the Variables March 2012
Oak Ridge Associated Universities

The Paths Most Traveled: What transcript and survey data tell us about students entering and leaving the STEM pipeline – Clemson University November 2011

Methods for teaching content integrating mathematics and science July 2010
Presentation to Korean teachers visiting Indiana University

Riding the Geoscience Cyberinfrastructure Wave of Data: Real Time Data Use in Education – 4th IEEE International Conference on e-Science, Indianapolis, IN December 2008

PRESENTATIONS

Maltese, A. V. & Harsh, J. (2015). Students' Pathways of Entry into STEM. Annual Meeting of American Educational Research Association, Chicago, IL.

de Leeuw, J., Motz, B., Eastwood, J., **Maltese, A. V.**, Goldstone, R. & Danish, J. (2015). Needle in the Neural Haystack: Electroencephalograph Signatures of Concept Learning While Viewing Naturalistic Educational Materials. Annual Meeting of American Educational Research Association, Chicago, IL.

Dabney, K., **Maltese, A. V.**, Tai, R. & Almarode, J. (2015). Gender and Early Career Choice in STEM. Annual Meeting of American Educational Research Association, Chicago, IL.

Börner, K., **Maltese, A. V**., Balliet, R., & Uzzo, S. (2015). Data Visualization Literacy of Youth and Adult Science Museum Visitors. Annual Meeting of American Educational Research Association, Chicago, IL.

Maltese, A. V., Ross, H. A. & Dai, S. (2015). Assessing Multinational Interest in STEM: Triggers of Interest. Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.

Melki, C. S., Balliet, R., **Maltese, A. V.**, Tai, R. & Almarode, J. (2015). Spark to Flame: Factors Influencing Students' Interest in Science Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.

McCormack, S. & **Maltese, A. V.** (2015). Lack of Opportunity, Achievement, and Choice? A Comparison of Math and Science Opportunity, Achievement, and Course Choice in Hispanic Males and Females. Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.

Harsh, J. A., Balliet, R., **Maltese, A. V.** & Tai, R. (2015). Essential Features and Benefits of Undergraduate Research Experiences: Perspectives of Student Researchers and Practicing Scientists. Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.

Burris, A. & **Maltese, A. V.** (2015). A Kids'-Eye View of Interest in the Zoo. Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.

Harsh, J. A., **Maltese, A. V.**, Esteb, J. & Schmitt-Harsh, M. (2015). Development of a Performance-Based Measure to Assess the Scientific Thinking Skills of Undergraduate Researchers. Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.

Maltese, A. V., Ross, H. A. & Dai, S. (2014). A comparison of STEM experiences in Australia, China and the United States. Panel at the Midwest Conference of the Comparative and International Education Society, Bloomington, IN.

Maltese, A. V. (2014). Using Multiple Measures to Identify the Experiences That Initiate and Maintain Interest in STEM. Annual Meeting of American Educational Research Association, Philadelphia, PA.

Melki, C. S., **Maltese, A. V.** & Wiebke, H. (2014). From Initial Interest to Persistence in STEM. Annual Meeting of American Educational Research Association, Philadelphia, PA.

Harsh, J. A., Balliet, R. & **Maltese, A. V.** (2014). Watching scientific expertise develop: Analysis of student practices in an authentic research setting using point-of-view video data. Annual Meeting of American Educational Research Association, Philadelphia, PA.

Maltese, A. V. (2014). Assessing Multinational Interest in STEM - First Findings. Annual Meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Melki, C. S., **Maltese, A. V.** & Wiebke, H. (2014). The nature of experiences responsible for the generation and maintenance of interest in STEM. Annual Meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Harsh, J. A., Esteb, J., Schmitt-Harsh, M. & **Maltese, A. V.** (2014). Assessing the development of undergraduate researchers' scientific thinking skills using performance data. Annual Meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Harsh, J. A., Balliet, R. & **Maltese, A. V.** (2014). Using point-of-view video data to analyze the development of scientific expertise in undergraduate research. Annual Meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Harsh, J. A., Balliet, R. & **Maltese, A. V.** (2014). Researching the development of scientific expertise: Analysis of student practices in the research setting using point-of-view data. American Association for the Advancement of Science National Meeting, Chicago, IL.

Balliet, R., Harsh, J. A. & **Maltese, A. V.** (2014). Preferred mentorship practices as reported by students in undergraduate research experiences. American Association for the Advancement of Science National Meeting, Chicago, IL.

Maltese, A. V. & Ross, H. A. (2013). Lessons from the Indiana University STEM survey: creating spaces for cross-cultural research. Paper presented at the International Conference on Higher Education Student Learning and Development in a Globalizing Time, Tsinghua University - Beijing, CHINA.

Maltese, A. V. (2013). Gaining access: The challenges of collecting survey data. Paper presented at the International Conference on Higher Education Student Learning and Development in a Globalizing Time, Tsinghua University - Beijing, CHINA.

Maltese, A. V. & Harsh, J. (2013). A Tale of Two Summers: Programs Designed to Improve Attitudes and Achievement of Underrepresented Students in Science and Math. Poster presented at the American Educational Research Association Annual Meeting, San Francisco, CA.

Maltese, A. V. & Harsh, J. (2013). Using Eye Tracking to Assess the Cognitive Processes of Graph Readers along the Expert-Novice Science Continuum. Paper presented at the American Educational Research Association Annual Meeting, San Francisco, CA.

Harsh, J., **Maltese, A. V.**, & Danish, J. A. (2013). Learning from the Learner's Point of View: Using Cameras to Assess Undergraduate Science Educational Practices. Paper presented at the American Educational Research Association Annual Meeting, San Francisco, CA.

Harsh, J. & **Maltese, A. V.** (2013). Eye Tracking Assessment of the Cognitive Processes of Experts and Novice in Graph Reading. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Puerto Rico.

Harsh, J., **Maltese, A. V.** & Danish, J. (2013). From Their Point of View: Assessing Undergraduate Educational Practices Using Point-of-View Cameras. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Puerto Rico.

Maltese, A. V., Kuchment, A., Wiebke, H. & Melki, C. S. (2013). Triggering and Maintenance of Interest in Pursuing STEM Degrees and Careers. Poster presented at AAAS Annual Meeting, Boston, MA.

Bryan, B., **Maltese, A. V.**, Danish, J., Liao, W., Bouldin, R. & Harsh, J. (2013). What Are Students Doing While You Are Trying to Teach? Poster presented at AAAS Annual Meeting, Boston, MA.

Harsh, J. & **Maltese, A. V. (2013).** Silver Bullet or Sampling Bias: The Effect of Undergraduate Research Experiences on Students' Career Intentions in Chemistry and Physics. Poster presented at AAAS Annual Meeting, Boston, MA.

Harsh, J., **Maltese, A. V.** & Warner, J. (2013). The Development of Expertise in Data Analysis Skills: An Exploration of the Cognitive and Metacognitive Processes by which Scientists and Students Construct Graphs. Poster presented at AAAS Annual Meeting, Boston, MA.

Maltese, A. V., Balliet, R. & Riggs, E. M. (2012). Using video to analyze how students make observations while in the field. Digital poster presented at the Geological Society of America Annual Meeting, Charlotte, NC.

Brown, C., **Maltese, A. V.** & Harsh, J. A. (2012). Undergraduate Research Experiences: Coming Up With a Universal Definition of Success and Assessment Instrument. Paper presented at meeting of the American Educational Research Association Annual Meeting, Vancouver, BC.

Park Rogers, M. A. & **Maltese, A. V.** (2012). Getting to the CoRe of It! Exploring Content Representations in the Context of Undergraduate Science. Paper presented at meeting of the American Educational Research Association Annual Meeting, Vancouver, BC.

Maltese, A. V. & Hochbein, C. (2012). Consequences of School Improvement: Examination of the Association between School Improvement and Student Science Achievement. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Indianapolis, IN.

Harsh, J. A. & **Maltese, A. V.** (2012). Data Interpretation along the Novice-Expert Continuum. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Indianapolis, IN.

Park Rogers, M. A., Wiebke, H. L., **Maltese, A. V.**, Harsh, J. A., Weiland, I. S., Melki, C. S. (2012). Getting to the CoRe of It! Scaffolding Undergraduates Understanding of Geology Using Content Representation Matrices. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Indianapolis, IN.

Maltese, A. V., Balliet, R. & Riggs, E. M. (2011). Field learning: Are your students doing what you think they are while out mapping? Paper presented at the Geological Society of America Annual Meeting, Minneapolis, MN.

Maltese, A. V. & Harsh, J. (2011). Interpretation of graphical representations along the novice – expert continuum. Poster presented at the Geological Society of America Annual Meeting, Minneapolis, MN.

Maltese, A. V. & Tai, R.H. (2011). Stemming the dropping tide: Looking at decline in student interest in science during middle school. Paper presented at meeting of the American Educational Research Association Annual Meeting, New Orleans, LA.

Harsh, J., **Maltese, A. V.** & Tai, R. H. (2011). Gender Differences in the Participation of Undergraduate Research Experiences in Science, Technology, Engineering, and Mathematics (STEM). Poster presented at meeting of the American Educational Research Association Annual Meeting, New Orleans, LA.

Hochbein, C. & **Maltese, A. V.** (2011). Is there an opportunity cost associated with school improvement efforts? Poster presented at meeting of the American Educational Research Association Annual Meeting, New Orleans, LA.

Maltese, A. V. (2011). Triangulating America's science literacy. Poster presented at the National Association for Research in Science Teaching Annual Meeting, Orlando, FL.

Harsh, J., **Maltese, A. V.** & Tai, R. H. (2011). A longitudinal perspective of gender differences in STEM undergraduate research experiences. Poster presented at the National Association for Research in Science Teaching Annual Meeting, Orlando, FL.

Potvin, G., **Maltese, A. V.,** Harsh, J. & Tai, R. H. (2011). What students and graduate programs can do to reduce doctoral completion times. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Orlando, FL.

Maltese, A. V. & Riggs, E. M. (2010). Through Their Eyes: Tracking the Gaze of Students in a Geology Field Course. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Philadelphia, PA.

Harsh, J., **Maltese, A. V.** & Tai, R. (2010) Undergraduate Research Experiences from a Longitudinal Perspective. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Philadelphia, PA.

Maltese, A. V. & Riggs, E. M. (2009). *Seeing the field through the eyes of students*. Paper presented at the Geological Society of America Annual Meeting, Portland, OR.

Maltese, A. V. (2009). *Student persistence in science and mathematics from high school through college.* Paper presented at the National Association for Research in Science Teaching Annual Meeting, Garden Grove, CA.

Baker, P., Brown, C. & **Maltese, A. V.** (2008). An Educator's perspective on Cyberinfrastructure. Forum presented at the Fourth IEEE International Conference on eScience, Indianapolis, IN.

Maltese, A. V. (2008). *Persistence in STEM: An Investigation of the Relationship between High School Experiences in Science and Mathematics and College Degree Completion in STEM Fields.* Poster presented at meeting of the American Educational Research Association Annual Meeting, New York, NY.

Maltese, A. V. (2008, March). *Eyeballs in the Fridge: Sources of Early Interest in Science.* Paper presented at meeting of the American Educational Research Association Annual Meeting, New York, NY.

Maltese, A. V., & Tai, R. H. (2007, August) *Project Crossover: Early interest in chemistry.* Paper presented at the American Chemical Society National Meeting, Boston, MA.

Maltese, A. V., & Tai, R. H. (2007, April). *The role of high school laboratories in student performance in introductory college science*. Paper presented at the National Association for Research in Science Teaching Annual Meeting, New Orleans, LA.

Tai, R. H., Liu, C. Q., **Maltese, A. V.**, & Fan, X. T. (2006, April). *Planning early for careers in science*. Paper presented at meeting of the American Educational Research Association Annual Meeting, San Francisco, CA.

Tai, R. H., Sadler, P., Fan, X. T., Ward, B., & **Maltese, A. V.** (2006, April). *Instructional technology use in science education: Evidence of a findings gap between large-scale and small-scale studies.* Paper presented at the National Association for Research in Science Teaching Annual Meeting, San Francisco, CA.

SERVICE

MENTORING

Postdoctoral Researchers

Russell Balliet	May 2013-December 2014
Amber Simpson	August 2015-Current

Graduate Students	COMPLETION DATE
Roshan Lamichhane (Program of Studies Committee Director)	2017
Alexandra Burris (Program of Studies Committee Director)	2017
Christina Melki (Dissertation Committee)	2015
Cindy Elbaz (Dissertation Committee, Geological Sciences)	2014
Joseph Harsh (Dissertation Director)	2014
Russell Balliet (Dissertation Committee, Purdue University - Geoscience Education)	2012
Polly Root (MS, Science Education)	2012

COMMITTEES

Professional

NARST Outstanding Paper Award	2009-2012
Review of Indiana Developmental & Content Standards for Educators	2010
Revision of Indiana's Academic Standards for Science (Earth Science)	2008-2009

School of Education

Secondary Education Council (Chair)	2014-2015
Learning and Teaching with Technology	2012-Present
Faculty Development Committee	2010-Present
Armstrong Teacher Educator Award Selection Panel	2009-2010

REVIEWER

Journal of Research in Science Teaching	2006 - Present
Journal of Chemical Education	2006 - Present

Journal of College Science Teaching	2006 - Present
Science Education	2011 - Present
NSF Grant Review (Panel & Ad Hoc)	2012 - Present
US-Israel Binational Science Foundation Grant Review (Ad Hoc)	2013
Learning and Individual Differences (Ad Hoc)	2009 - Present
Learning and Instruction (Ad Hoc)	2013 –Present
Child Development (Ad Hoc)	2015
The Review of Higher Education (Ad Hoc)	2015
Instructional Science (Ad Hoc)	2015
The Elementary School Journal (Ad Hoc)	2015
PLOS One (Ad Hoc)	2015
Education Sciences (Ad Hoc)	2014
Equality, diversity and inclusion: An international journal (Ad Hoc)	2014
Research in Science & Technological Education (Ad Hoc)	2013
American Educational Research Journal (Ad Hoc)	2012
The Physics Teacher (Ad Hoc)	2010

AFFILIATIONS

American Association for the Advancement of Science
American Educational Research Association
National Association of Geoscience Teachers
National Association of Research in Science Teaching
National Science Teachers Association