

## **Dr. Scott Timothy Miller, Ph. D.**

Department of Physics, Sam Houston State University  
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### **Professional Preparation**

#### **Rutgers University**

Civil Engineering, Bachelor of Science, 1991

Mathematics, Bachelor of Arts, 1991

#### **University of Maryland**

Astronomy, Master of Science, 1995

Astronomy, Doctor of Philosophy, 2002

### **Appointments**

**Associate Professor**, 2014-present – Sam Houston State University, Huntsville, Texas

**Assistant Professor**, 2008-2014 – Sam Houston State University, Huntsville, Texas

**Lecturer**, 2002-2008 – the Pennsylvania State University, University Park, Pennsylvania

**Instructor**, 2000-2002 – University of California at Santa Barbara, Santa Barbara, California

### **Peer- Review Publications:**

Salimpour, S., Bartlett, S., Fitzgerald, M.T., Cutts, K.R., James, C.R., **Miller, S.T.**, Danaia, L., Cabezon, S., Faye, M., Baudouin, C., Birkenbauma, D., Anjos, S., Wu, Q., Chu, H., and Slater, E., *Robotic Telescopes and Student Research in the School Curriculum around the OECD Countries*, 2018.

Proceedings of the 2017 Robotic Telescopes, Student Research and Education Conference. (accepted)

James, C.R., and **Miller, S.T.**, *Robotic vs. Simulated vs. 'The Real Thing:' Faculty and Student Perspectives on Observing*, 2018. Proceedings of the 2017 Robotic Telescopes, Student Research and Education Conference. (accepted).

**Miller, S. T.**, *Modeling the Nature of Science with the Mystery Tube*, 2014, *The Physics Teacher*, 52(9), 548

Metoyer, S., **Miller, S. T.**, Mount, J., Westmoreland, S., *Examples from the Trenches: Improving Student Learning in the Sciences Using Team-Based Learning*, 2014, *Journal of College Science Teaching*, 43(5)

**Miller, S. T.**, *Increasing Student Participation in Online Group Discussions Via Facebook*, 2013, *Astronomy Education Review*, 12 (1), 010103

Faherty, J. K., Rodriguez, D. R., and **Miller, S. T.**, *The Hetu'u Global School Group Network: Measuring the Distance to the Sun Using the June 5th/6th Transit of Venus*, 2012, *Astronomy Education Review*, 11 (1), 010203

**Miller, S. T.**, James, C. R., *The Effect of Animations within PowerPoint Presentations on Learning Introductory Astronomy*, 2011, *Astronomy Education Review*, 10 (1), 010202

**Miller, S. T.**, Redman, S., *Improving Instructor Presence in an Online Introductory Astronomy Course Through Video*, 2010, *Astronomy Education Review*, 9, 010115

**Miller, S. T.**, Redman, S., *Enhancing Student Performance in an Online Introductory Astronomy Course with Video Demonstrations*, 2010, *Astronomy Education Review*, 9, 010114

### **Other Significant Publications**

Foster, A., Jasper, W., Cook, T., Rowe, M., **Miller, S.**, & Loeffler, P., *Aligning the Texas Career and College Readiness Standards with a model middle school teacher preparation program curriculum project*, 2010, Report prepared for the Advancement of the College and Career Readiness Standards in

Teacher Preparation Programs, Science faculty collaborative, Texas A&M-Corpus Christi, TX.

Deming, G., **Miller, S.**, and Trasco, J., *Cooperative Learning Activities in Introductory Astronomy for Non-Science Majors*, 1997, University of Maryland, College Park

### **Non-Peer-Review Publications**

Hites, T., **Miller, S.**, *Gains in Secondary Teachers' Content Knowledge Translate to Gains in Student Learning*, 2015, Bulletin of the American Astronomical Society, 225, 245.09

Reeves, K., **Miller, S.**, Foster, A., *Perspectives on Science Teacher Professional Development: A study of the ASSET Experience*, 2015, Bulletin of the American Astronomical Society, 225, 245.10

Ennis, R., Murphy-Manley, **Miller, S.**, Gillespie, M., *The Wisdom CTAC Proposal: Editors' Comments and Ennis' Replies*, 2014, Inquiry: Critical Thinking Across the Disciplines, 28(2).

Lewis, C., **Miller, S.**, Foster, A. & James, C.R., *Gains in Content Knowledge an ASSET to East Texas Secondary Teachers*, 2014, Bulletin of the American Astronomical Society, 223, 448.12

Kareva, A., **Miller, S.**, Foster, A. & James, C.R., *The Power of Affect: A Comparison of Astronomy/Science Attitudes Among Students and Secondary Teachers*, 2014, Bulletin of the American Astronomical Society, 223, 448.11

**Miller, S. T.**, *Engaging in Online Group Discussions Using Facebook to Enhance Social Presence, Connecting People to Science*, ASP Conference Series, Joseph B. Jensen, James G. Manning, Michael G. Gibbs, and Doris Daou, eds., 2012 Astronomical Society of the Pacific, 457, 299

**Miller, S.**, Redman, S., *Improving Web-Based Student Learning Through Online Video Demonstrations*, 2010, Bulletin of the American Astronomical Society, 215, 366.05

**Miller, S.**, James, C.R., *PowerPoint Presentations: Help or Hindrance?*, 2010, Bulletin of the American Astronomical Society, 215, 466.03

**Miller, S.**, Redman, S., *Creating an Instructor Presence in an Online Course at the Expense of Your TA's Life (A Small Price to Pay)*, 2009, Bulletin of the American Astronomical Society, 213, 462.04

### **Synergistic Activities**

1. Awarded the NASA/ROSES Opportunities in Education and Public Outreach in Earth and Space Science (EPOESS) research grant 2011, *ASSET: Astronomy Summer School of East Texas (PI: \$204,351)* to create and conduct an astronomy summer institute for regional 6 – 12 grade astronomy/science teachers. One byproduct of this grant is the creation of education resource materials for middle and high school astronomy teachers nationwide.
2. Presented research talks and posters focused on collaborative learning in introductory astronomy classes at various national and international conferences.
3. Produced 19 astronomy-concept based videos for an introductory astronomy online course as a means of introducing an instructor presence within an online setting. Links to the videos can be found at: <http://www.youtube.com/Astronomy001>.
4. Presented workshops to science teachers and educators at the Southwest Association for Science Teacher Education and the Conference for the Advancement of Science Teaching conferences, to disseminate lesson plans and pedagogical techniques for teaching astronomy.
5. Served as editor or reviewer for a number of peer-reviewed journals focusing on critical thinking and/or science research and education.