

Track 1: STEM Partnerships And Collaboration	Track 2: Teacher Preparation/Preparing Students College-Ready in STEM	Track 3: Higher Education STEM-Improved Learning though Quality Teaching	Track 4: Decreasing the STEM Gap through Outreach and Systems Thinking
<b>Break-out Session 1: 10:10 a.m. to 11:00 a.m.</b>			
<p><b>Filling the Gaps: Building and Sustaining a Scientific Workforce</b>            Darcie Wallace-Duckworth &amp; Cheryl R. Hild, Aegis Sciences Corporation</p>	<p><b>Next Generation Science: Bridge to the Future</b>            Karen Meyers, Regional Math and Science Center, Grand Valley State University (GVSU)</p>	<p><b>Improvement in Teaching Quality Concepts to Engineers: Measurement, Data Analysis, Experiments and Modeling</b>            Chris Plouff, Paul Stephenson, &amp; Shabbir Choudhuri, Grand Valley State University</p>	<p><b>The Michigan STEM Partnership in Action: A Collaboration Between Business, Education, and Government</b>            Michael Tanoff, Kalamazoo Area Mathematics and Science Center &amp; Kathy Grosso, Battle Creek Public Schools</p>
<p><a href="#">Paper</a></p>	<p><a href="#">Paper</a></p>	<p><a href="#">Paper</a></p>	<p><a href="#">Paper</a></p>
<p><b>Integration of STEM Community College Curricula and Industry Partnerships through National Certifications</b>            Susan Ely, Ivy Tech Community College-Lafayette</p>	<p><b>The Pedagogy of Science Teaching Test</b>            William W. Cobern and colleagues, Western Michigan University</p>	<p><b>Teaching Lean Six Sigma with Service Learning</b>            Janet Braun, Western Washington University</p>	<p><b>An Aviation - Themed STEPS Camp for Engaging 7th Grade Girls: Assessment Summary</b>            Sara L. Maas, Charles R. Standridge, &amp; Paul D. Plotkowski, GVSU</p>
<p><a href="#">Paper</a></p>	<p><a href="#">Paper</a></p>	<p><a href="#">Paper</a></p>	<p><a href="#">Paper</a></p>

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<b>Break-out Session 2: 11:10 a.m. to 12:00 p.m.</b>			
<p><b>LASER: Leadership And Science Ensures Results - Evolution of a STEM Partnership Between Industry and Education</b> Jill Brooks, Raytheon</p> <p><a href="#">Paper</a></p> <p><b>Promoting STEM Education Through the Ford High School Science &amp; Technology Programs</b> Imad H. Makki, Ford Motor Company</p> <p><a href="#">Paper</a></p>	<p><b>Synthesizing the Literature Concerning Math Anxiety to Inform a Project on Pre-Service Teacher Retention Rates</b> Nicholas Flegg, Kamariah Mohamed, &amp; Karen Trimmer, University of Southern Queensland, Australia <a href="#">Paper</a>      <a href="#">Presentation</a></p> <p><b>Intel Math Connections: A Three Year Study of the Impact of a Math-Based Program on Elementary Teachers</b> Matt Feldmann, Goshen Education Consulting, Inc., Adam Weyhaupt, SIUE, &amp; Mary Ann Quivey, Monroe /Randolph Regional Office of Education #45 <a href="#">Paper</a></p>	<p><b>An Overview of MIT's Undergraduate Practice Opportunities (UPOP)</b> Susann Luperfoy, MIT</p> <p><a href="#">Paper</a></p> <p><b>Pedagogical Environments in Chemistry: Effects on Women's Self-Efficacy Beliefs</b> Megan L. Grunert , Western Michigan University &amp; George M. Bodner, Purdue University</p> <p><a href="#">Paper</a></p>	<p><b>What Works in STEM Intervention Programs (SIPs) for URM Undergraduates</b> Raina Dyer-Barr, University of Illinois at Urbana-Champaign <a href="#">Paper</a></p> <p><b>The Hispanic Health Workforce Gap: Creating Fellowship Programs</b> Michelle Quinteros de Czifra, HSHPS &amp; Suzanne M. Randolph, MayaTech Corp.</p> <p><a href="#">Paper</a></p>

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<b>Break-out Session 3: 1:35 p.m. to 2:25 p.m.</b>			
<p><b>Invited Session: Industry Sponsored Projects: Balancing Academic and Industrial Needs Discussion</b> Chris Pung, GVSU; Jason Howe, SAF Holland; Tony Slabaugh, Attwood Marine; Jerry Barofsky, L3 Communications; and Todd DeBruyne, Cameron.</p>	<p><b>Teachers 'n Training: Building Formal STEM Teaching Efficacy through Informal Science Teaching Experience</b> Georgia Bracey, Molly Brooks, Stephen Marlette, &amp; Sharon Locke, Southern Illinois University Edwardsville</p> <p><a href="#">Paper</a></p> <p><b>Creating a Foundation for Engineering Education in Five K-12 Rural School Districts</b> Stephen Marlette, Allison Fahsl, Gary Mayer, &amp; Georgia Bracey, Southern Illinois University Edwardsville</p> <p><a href="#">Paper</a></p>	<p><b>Enhancing STEM Education through Project-Based Learning: Barriers versus Benefits</b> Susan Mendoza &amp; Robert M. Smart, Grand Valley State University</p> <p><a href="#">Paper</a></p> <p><b>A Contract Research Organization as a Model for Engaged Learning in STEM</b> Mary Nelson (presenter) Craig Caldwell, Salt Lake Community College</p> <p><a href="#">Paper</a></p>	<p><b>Eliminating Confounding Variables to STEM Implementation in a Rural School District Using Mobile 1:1</b> Diane Brissette, Greenville Public Schools &amp; James Anderson, Ventra</p> <p><a href="#">Paper</a></p> <p><b>sHaPe: Camp for Middle School Students</b> Kathryn Agee, Regional Math and Science Center, GVSU</p> <p><a href="#">Paper</a>      <a href="#">Presentation</a></p>

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<b>Break-out Session 4: 2:40 p.m. to 3:30 p.m.</b>			
<p><b>Developing an Advanced Manufacturing Certificate Program for High School Students</b> Christopher Reis, Kettle Moraine School District (WI) &amp; Donald Patnode, Second Chance Partners for Education</p> <p><a href="#">Paper</a></p> <p><b>Pre-Engineering STEM Capstone Project to Design an Oil Cap Remover Tool to Help General Aviation Cessna Pilots</b> Sandy Feola, NCME and Sinclair Community College</p> <p><a href="#">Paper</a></p>	<p><b>Learning by Doing: A Case Study of a Clinical Model for STEM Teacher Preparation</b> Caryn M. King, Grand Valley State University</p> <p><a href="#">Paper</a></p> <p><b>Bridging the Creativity and STEM Crisis</b> Daniel Katanski, Eastern Michigan University</p> <p><a href="#">Paper</a></p>	<p><b>How Do We Know? Inquiry-Based Front Ends for Conventional Topic Treatments in STEM Textbooks</b> David Schuster, Western Michigan University</p> <p><a href="#">Paper</a></p> <p><b>Using Models to Teach and Learn Engineering</b> Slobodan Urdarevik, Western Michigan University</p> <p><a href="#">Paper</a></p>	<p><b>Blending Innovation, Student Co-Learning, Entrepreneurship and Informal Education-Innovation 5</b> Thomas Deits, Michigan State University &amp; Katherine LaCommare, Lansing Community College</p> <p><a href="#">Paper</a>      <a href="#">Presentation</a></p> <p><b>An Integrative STEM Experience Onboard a Research Vessel</b> Janet H. Vail &amp; Michele H. Smith, GVSU</p> <p><a href="#">Paper</a></p>