Thursday, February 1, 2018 (Ballroom D/E)

10:00 – 12:00  Registration

11:00 – 12:00  Lunch Provided (Ballroom)

12:15 – 12:45  Welcome and Announcements (*Facilitator: Ginger Holmes Rowell, Middle Tennessee State University*)
  - Dr. Robert Fischer, Dean, College of Basic & Applied Sciences, MTSU
  - Dr. Adam Rollins, Dean, School of Mathematics & Sciences, Lincoln Memorial University
  - Mr. Jeff Porter, Director of Research Services, Department of Research and Sponsored Programs, MTSU
  - Dr. Henrique Momm, MTSU PI NASA Space Grant & Professor Geoscience, MTSU

12:45 – 1:45  Science Education Keynote, (*Facilitator: Amy Phelps, Middle Tennessee State University*)
  - Inquiry and Meaningful Learning in the Undergraduate Chemistry Laboratory
    - Dr. Stacey Lowery Bretz, University Distinguished Professor, Department of Chemistry & Biochemistry, Miami University of Ohio

1:45 – 2:10  Rapid Talks (*Facilitator: Ginger Holmes Rowell, Middle Tennessee State University*)
  - Engaging Students in Science Understanding Using Literature Circles. Sally Millsap and Tasha Frick (Middle Tennessee State University)
  - MODULE(S2): Mathematics of Doing, Understanding, Learning and Educating for Secondary Schools. Jeremy F. Strayer, Alyson E. Lischka, Candice M. Quinn, Lucy A. Watson (Middle Tennessee State University)
  - Undergraduate Biology Students’ Misconceptions about Pedigrees. Zachary T. Grimes, Joshua W. Reid, Rebecca L. Seipelt-Thiemann (Middle Tennessee State University) and Nancy M. Boury (Iowa State University)
  - Using NOS Cards and Plickers to Increase Pre-service Teachers’ Interest and Engagement in Science. Velta Napoleon-Fanis and Grant E. Gardner (Middle Tennessee State University)

2:10 – 2:25  Break/Discussion (Afternoon snacks)

2:25 – 3:25  Mathematics Education Keynote, (*Facilitator: Jeremy Strayer, Middle Tennessee State University*)
  - The Mathematics Teacher Education Partnership: Improving the Preparation of the Next Generation of Secondary Mathematics Teachers
    - Dr. Gary Martin, Emily R. and Gerald S. Leischuck Endowed Professor, Department of Curriculum and Teaching: TEAM-Math, Auburn University, Auburn, AL
    - Dr. James Martinez, Assistant Professor, Department of Educational Leadership and Policy Studies, University of Tennessee, Knoxville, TN
    - Dr. Alyson E. Lischka, Assistant Professor of Mathematics Education, Department of Mathematical Sciences, Middle Tennessee State University

3:25 – 3:45  Rapid Talks (*Facilitator: Ginger Holmes Rowell, Middle Tennessee State University*)
  - The 2018 Tennessee STEAM Festival. John Hawkins (Discovery Center, Murfreesboro)
  - MTeach & Discovery Center: A Collaborative Model Supporting STEM Teaching & Learning. Dale McCreedy (Discovery Center, Murfreesboro)
  - New Biotechnology Laboratory Enhances Student Learning Opportunities at Lebanon High School. Melissa M. Bunch (Lebanon High School)
  - ASCE Bridge Competition for High School Students. Janey Camp (Vanderbilt University)
3:45 – 4:45  Tennessee K-12 Education Update, *(Facilitator: Sally Pardue, Tennessee Technological University)*  
*Science Education in Tennessee: Incorporating Three Dimensions*  
Mr. Brian Caine, Science Coordinator, TN Department of Education, Nashville, TN

4:45 – 6:00  Setup for Dinner (all leave the ballroom area, please)

4:45 – 5:45  Individual Meetings

6:00 – 8:00  Banquet and Keynote Speaker, *(Facilitator: Sarah Bleiler-Baxter, Middle Tennessee State University)*  
*Separating Facts from Fads: How Our Choices Impact Students’ Performance and Persistence in STEM*  
Dr. Philip Sadler, Director, Science Education Department, Harvard Smithsonian Center for Astrophysics, F.W. Wright Senior Lecturer in Astronomy, Harvard University, Cambridge, MA

Friday, February 2, 2018

7:30 – 8:15  Full Breakfast (Set up in hallway, with eating in 224, 210 & 221)

8:15 – 9:55  Concurrent Breakout Session 1 (talks are 25 minutes including questions)

**Mathematics Education Research 1 (RM 220, Facilitator: Lisa Green, Middle Tennessee State University)**
- Integrating Face-to-face Professional Development and a MOOC-Ed to Develop Teachers’ Statistical Knowledge for Teaching. Ryan Seth Jones, Jennifer Lovett, Angela Google (Middle Tennessee State University)
- The Impact of a Drawing Intervention on the Spatial Visualization Skills of Sixth-grade Students. Teresa Schmidt (Middle Tennessee State University)

**Science Education Research 1 (RM 224, Facilitator: Ryan Nivens, East Tennessee State University)**
- Undergraduate Biology Students’ Misconceptions about Mutations. Joshua W. Reid, Zachary Grimes, Rebecca Seipelt Thiemann (Middle Tennessee State University), Nancy Boury (Iowa State University)
- Exploring Science with Students Outdoors through the GLOBE Program. Janey Camp (Vanderbilt University)
- Leveraging GLOBE Resources to Implement Middle Grades Science and Mathematics Standards. Deborah A McAllister (University of Tennessee at Chattanooga)
- iPads in the Cockpit: Policies and Practices for Instructors in Aerospace Education. Tyler Babb (Middle Tennessee State University)

**STEM Education Research 1 (RM 221, Facilitator: Frances Harper, University of Tennessee at Knoxville)**
- Oakley STEM Center – An Evaluation of Outreach Events and Public Services. Sally Pardue, Abir Eldaba (Oakley STEM Center, Tennessee Technological University)
- Characteristics of a Successful STEM Middle School: Developing a Framework for Excellence in STEM Schools. Nicolas McGeehe, Meghan Clemons (Tennessee Technological University)
- An Overview of the LMU Summer STEM Academy and Participant Attitudes toward Mathematics and Science. Keven W. Cooper, Ashleigh Thomas (Lincoln Memorial University)
- The Science of Outreach: Meeting the STEM Needs of K-12 Teachers. Thura Mack, Olivia Frederick (University of Tennessee at Knoxville)

9:55 – 10:10  Break/Discussions (Morning snacks)
Concurrent Breakout Session 2 (talks are 25 minutes including questions)

Mathematics Education Research 2 (RM 220, Facilitator: Frances Harper, University of Tennessee at Knoxville)
- INSPIRE-A Hybrid PD Model that Develops Teachers’ Knowledge for Teaching and Changes their Teaching Practice. Dovie Kimmins, Jeremy Winters, Rongjin Huang (Middle Tennessee State University)
- Teacher Learning and Embedded Professional Learning Support. Michael Lawson, Gale Stanley, Ashley Walther, Lynn Hodge (University of Tennessee at Knoxville)
- Using a Diagnostic Test as a Tool to Increase Student Success in College Calculus. Wanda R. Payne, Martene L. Stanberry (Tennessee State University)

Science Education Research 2 (RM 224, Facilitator: Kevin Cooper, Lincoln Memorial University)
- Avenues for Embedding Computing in STEM. Ryan Andrew Nivens (East Tennessee State University)
- Ambitious Discursive Moves that Support Explanatory Rigor in an Undergraduate Biology Laboratory Course. Anna Grinath (Middle Tennessee State University).
- Let’s Get Physical! Physics PD for Mathematics Teachers. Jeneva Clark, Peggy Bertrand (University of Tennessee at Knoxville)

STEM Education Research 2 (RM 221, Facilitator: Grant Gardner, Middle Tennessee State University)
- STEM and Literacy in Education through Project Based Learning (SLICE-PBL). Chih-Che Tai (East Tennessee State University)
- Is STEM More Than a Buzz Word? Crossing the Boundaries of Theory and Practice. Candice M Quinn, Joshua W. Reid (Middle Tennessee State University)
- Differential Use of Clickers in STEM Faculty. Joshua W. Reid, Zhigang Jia, Grant E. Gardner (Middle Tennessee State University)

11:30 - Lunch/Depart (Set up in hallway, with eating in 224, 210 & 221)