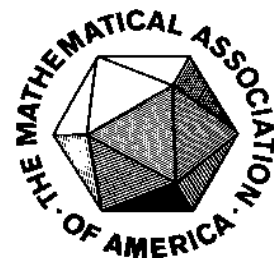
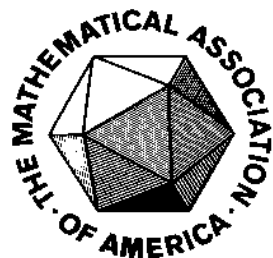


# Student Contributed Paper Sessions

Eastern Pennsylvania and Delaware Section of  
the Mathematical Association of America

**Muhlenberg College**

April 2, 2016



## Session I-A: Graduate Student Talks (TRUMBWR 305)

- 1:10 *Stability of the Chebyshev Spectral Collocation Method for Non-Linear Partial Differential Equations on Rectangular and Polar Grids*  
Matthew N. Moore, Delaware State University
- 1:30 *High School Geometry Textbooks' Opportunities for Reasoning-and-Proving*  
Jenifer Hummer, University of Delaware
- 1:50 *On the Proof of the Friendship Theorem*  
Hussein Awala, Temple University
- 2:10 *Expander Families and the Isoperimetric Constant*  
Amy Strosser, Villanova University

## Session I-B: Undergraduate Student Talks (TRUMBWR 311)

- 1:10 *The History of Algorithms*  
Deion Floyd, Eli Halpern, University of the Sciences
- 1:22 *Sudoku*  
Matt Marshall, Tori Lugiano, University of the Sciences
- 1:34 *The History of Knight's Tour*  
Brianna Mengini, Brielle Okulicz, Jaden Daubert, University of the Sciences
- 1:46 *An 'Unreal' Infinity*  
Richard Lichtenwalner, Kutztown University of Pennsylvania
- 1:58 *A Steiner Optimization of the Cable Trench Problem*  
Dylan Arthur Gaspar, Kutztown University
- 2:10 *Triangular Tchaikillon-Toe on an Affine Honeycomb Matrix*  
Brent Keath, John Gallagher, Eastern University

### **Session I-C: Undergraduate Student Talks (TRUMBWR 347)**

- 12:58    *Revised Star Axiom System*  
Maria Colaciello, King's College
- 1:10    *An Axiom System*  
Bridget McGowan, King's College
- 1:22    *Axiom System*  
Alexandra Weidman, King's College
- 1:34    *The Arrow Axiom System*  
Kayla Fearheller, King's College
- 1:46    *The Battle of the Avengers*  
Sharon Flores, King's College
- 1:58    *Degree sequences of partial Halin graphs*  
Theresa Marlin, DeSales University
- 2:10    *Application of linear algebra to calculus*  
Michael Gottstein, Misericordia University

### **Session I-D: Undergraduate Student Talks (SHNKWLR 234)**

- 1:10    *The Monty Hall Problem and its Variations*  
Amanda Long, Elizabethtown College
- 1:22    *An Implementation of Modern Portfolio Theory with Excel*  
Michael DiBella, Elizabethtown College
- 1:34    *Cryptanalysis of the Hill Cipher*  
Jess Lehr, Elizabethtown College
- 1:46    *Scheduling an NHL Season Using Integer Programming*  
Collin Davidson, Elizabethtown College
- 1:58    *Does the Infinite Sum of the Reciprocals of Primes Converge or Diverge?*  
Arielle Roth, Elizabethtown College
- 2:10    *How Now Brown Tau: Finding Weakly Sum-Free Sets*  
Samuel Edwards, Gettysburg College

## Session I-E: Undergraduate Student Talks (SHNKWLR 340)

- 1:10     *Assessing the accuracy of Arcadia University's math placement test*  
Theresa Dewa, Carmela Straiton, Arcadia University
- 1:22     *Using the Buhlmann Technique to Analyze Credibility*  
Liyuan (Hobbs) Zhang , Arcadia University
- 1:34     *Actual versus Effective Sample Size*  
Zhenbang Wang, Arcadia University
- 1:46     *A calculus student's dream:  $(f(x) \cdot g(x))' = f'(x) \cdot g'(x)$  and  $(f(g(x)))' = f'(g'(x))$*   
LinXing Yao, Arcadia University
- 1:58     *Modeling the 2013-2015 Ebola Outbreak in West Africa Using Differential Equations of SIR Form and Markov Matrices*  
Ronald Berna, Villanova University
- 2:10     *Expected Values for Time Until Untenability in Pólya Urns*  
Brandon Schneider, Muhlenberg College
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