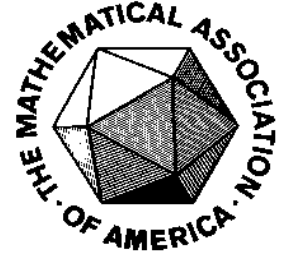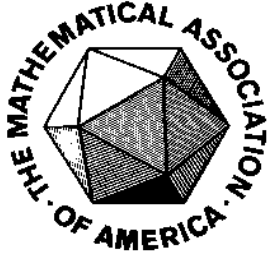# Student Contributed Paper Sessions

Eastern Pennsylvania and Delaware Section of the Mathematical Association of America

Franklin & Marshall College
March 14, 2015

Session I-A: Graduate Student Talks (STA 105)

1:40   *The Physics (and Mathematics) of Negative Refraction*
Eric Stachura, Temple University

2:00   *Bayesian and k-Nearest Neighbor Classification for Detection of Breast Cancer and Osteoporosis*
Andre Strong, Amadou Hama, Delaware State University

2:20   *The Application of Normalized Graph Cut Partitioning to Image Registration*
Matthew Neil Moore, Delaware State University

2:40   *The Sixty-Six Billion Dollar Eigenvector*
Ryan Evans, University of Delaware

Session I-B: Undergraduate Student Talks (STA 109)

1:40   *From Quantum Mechanics to Financial Modelling*
Stefan Busheski, Franklin and Marshall College

1:55   *Optimal Controls in a Mathematical Model of Agroecosystems*
Cara Sulyok, Ursinus College

2:10   *Comparing Canonical and Non-Canonical Link Functions in Generalized Linear Models*
Thyme Greenfield, Bloomsburg University

2:25   *Optimal Strategies for Probability Bingo*
Kathryn Sutcliffe, Elizabethtown College

Session I-C: Undergraduate Student Talks (STA 110)

1:40   *Computing the Dimension of Cantor Sets*
        Emily Nguyen, Muhlenberg College

1:55   *n-Pythagorean Triples*
        Jeremy Fus, Muhlenberg College

2:10   *Introduction to APBRmetrics*
        Eric Chavis, Muhlenberg College

Session I-D: Undergraduate Student Talks (STA 114)

1:40   *The danger of ignoring hierarchical data*
        Franklin Loeb, Arcadia University

1:52   *Imputation and related statistical methods*
        Stephanie Roscher, Xinling Wang, Arcadia University

2:04   *Outlaw p-values and confidence intervals? The current debate*
        Matthew Hoffman , Arcadia University

2:16   *Statistical techniques for balancing samples*
        Elizabeth Begley, Xi Xia, Arcadia University

2:28   *Using the efficient frontier model to optimize investment portfolios*
        QianYi Cheng, Yimeng Zhang, Yaxuan Zhou, Arcadia University

2:40   *Does auto- insurance red-lining still exist?*
        Eric Macchi, Yihao Gu, Arcadia University