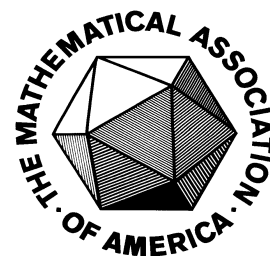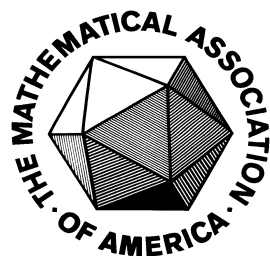# Student Contributed Paper Sessions

Eastern Pennsylvania and Delaware Section of the Mathematical Association of America

Dickinson College

April 6, 2013

Session I-A: Undergraduate Student Talks (Stafford Auditorium)

1:15   *Mathematics of Knight's Tour*
        Carrie Siu, Joo Young Choi, University of the Sciences in Philadelphia

1:27   *Digital Roots and the Development of a Strategy for a Nim-like Game*
        Julia Hodge, Elizabethtown College

1:39   *Doing Math While Waiting for Dinner*
        Ellen Lowy, Elizabethtown College

1:51   *Algorithm for Sudoku Generating Program*
        Xiang Li, Bloomsburg University

2:03   *A Generalization of the Game of Shove*
        Brian Stoyell-Mulholland, West Chester University

2:15   *Playing Games on Graphs*
        Ryan Becker, Gettysburg College

Session I-B: Undergraduate Student Talks (Tome 115)

1:15   *Continued Fractions as Solutions to Pell's Equation*
        Marc Besson, Dickinson College

1:27   *Classification of Symbolic Dynamics for One-dimensional Dynamical Systems with overlapping regions*
        Yujia Zhou, Dickinson College

1:39   *Finite-element solution of the Poisson-Pressure equation*
        John Edwardson, Temple University

1:51   *Prejudicial Rates: An Analysis of the Loss Ratio in Auto Insurance*
        Elizabeth Wolf, Stephanie Jamerson, Arcadia University

2:03   *Qualitative Techniques in Modeling*
        Lauren Ellenberg, Arcadia University

2:15   *The Midge Classification Problem*
        Ralph Beishline, Jacob Jacavage, Sarah Reed, Bloomsburg University

Session I-C: Undergraduate Student Talks (Tome 117)

1:15　　*Axiom System*
　　　　Sean Bromiley, King's College

1:27　　*Axiomatics*
　　　　Karen Perez, King's College

1:39　　*Axiom System*
　　　　Jessica McDermott, King's College

1:51　　*Cantor Set*
　　　　Alan Dyson, Elizabethtown College

2:03　　*Archimedes and his approximation of $\sqrt{3}$*
　　　　Tyler Derr, Penn State Harrisburg

2:15　　*Symmetries of Fibonacci Points, Modulo m*
　　　　Josh Updike, Patrick Flanagan, Shippensburg University

Session II-A: Undergraduate Student Talks (Stafford Auditorium)

2:45　　*Charlotte Angas Scott: Breaking Barriers for Women in Mathematics*
　　　　Rebecca Thompson, Dickinson College

2:57　　*A Century Old Proof: Tracking the Proof of the Poincare Conjecture*
　　　　Travis Brown, Dickinson College

3:09　　*Maps, Math, and Mercator*
　　　　Katie Roy, Dickinson College

3:21　　*The Effectiveness of Homework on Achievement in Linear Algebra*
　　　　Catherine Matta, Cabrini College

3:33　　*Temple University Math Circle*
　　　　Brian Filips, Lara Leggio, Temple University

3:45　　*Are Resampling Techniques the Future of Statistics?*
　　　　Zachary Baker, Harrison Stoll, Arcadia University

Session II-B: Undergraduate Student Talks (Tome 115)

2:45   *Elliptic Curve Cryptography*
Taryn Shank, Elizabethtown College

2:57   *Minimum Sumset Size*
Karenna Genzlinger, Gettysburg College

3:09   *Truncated Pyramid: A Problem from the Moscow Papyrus*
Alexandra Milbrand, Penn State Harrisburg

3:21   *Optimal Crop Rotation that the Dickinson College Farm*
Miguel Rodriguez, Dickinson College

3:33   *Products of Geodesic Graphs*
Rommy Marquez, Arcadia University

3:45   *Approximation Trigonometric Functions Using Special Angles*
Ahmad Alruhaimi, King Fahd University of Petroleum and Minerals

Session II-C: Undergraduate Student Talks (Tome 117)

2:45   *Math Modeling and Sustainability*
Xinyuan Dong, Bryn Mawr College

2:57   *Autosomal, Y chromosomal and Mitochondrial SNPS Independency and Match Probability in Forensic Science*
Yatong Li, Bryn Mawr College

3:09   *Stochastic and Agent Based Models of the Effect of Preventive Measures on a Nosocomial Infection*
Jayant Velagala, Ursinus College

3:21   *Optimization Techniques into Biological Systems*
Alexandra Signoriello, Ursinus College

3:33   *Using Bioinformatic Approaches to Predict Gene Expression Based on Promoter Structure in AML*
Natalie Stanley, Dickinson College