

# 2008 Annual Spring Meeting of the Metropolitan New York Section of the MAA



## The Courant Institute of Mathematical Sciences New York University Saturday, 3 May 2008

### **Schedule of Contributed Papers and Posters**

#### **Research Presentations**

Presider: Jerry G. Ianni, LaGuardia Community College

1:20 – 1:40 PM: **The Spirit of Discovery: The Digital Roots Of Integers**Eric Milou and Jay L. Schiffman, Rowan University

1:40 – 2:00 PM: The Optimal Form of Distribution Networks Applied to the Kidney and Lung

Walton R. Gutierrez, Touro College

2:00 – 2:20 PM: Sabermetrics: The Math Behind Baseball, Allen Paltrow

2:20 – 2:40 PM: On Gray Code, Signed Iteration and Cantor Sets, Matthew Manilow

2:40 - 3:00 PM: Further Relationships between Chebyshev Polynomials

Fibonacci and Lucas Numbers and other Functions of Interest

Harvey J. Hindin, Emerging Technologies Group

3:00 – 3:20 PM: Unraveling the Complexity of the Metatarsal Length Pattern of the Human Foot

Phillip H. Demp, Temple University

## **Pedagogical Presentations**

Presider: Emad Alfar, Nassau Community College

1:20 - 1:40 PM: Emergent Spatial and Geometric Thinking: A Comparative Study of

Young American and Chinese Children's Block Play

Chia-ling Lin, Nassau Community College & Daniel Ness, Dowling College

1:40 - 2:00 PM: Mathematics and Critical Thinking Interdisciplinary Pair:

Advantages and Benefits, Yasser Hassebo & Judit Torok, LaGuardia Community College

2:00 - 2:20 PM: The Cauchy Functional Equation in Teaching Statistics

Alexander Vaninsky, Hostos Community College

2:20 - 2:40 PM: Asymptotes of a logarithmic function can be hazardous to your financial health

Frank Wang, LaGuardia Community College/CUNY

2:40 – 3:00 PM: Mathematics Exams in the CLEP Program: Their Relevance to

the College Curriculum, Robin O'Callaghan, The College Board (NY)

3:00 - 3:20 PM: Wonder, Discovery and Intuition in Elementary Mathematics

Andrew Grossfield, Ph. D., P. E., Vaughn College

#### **Student Presentations**

Presider: David N. Seppala-Holtzman, St. Joseph's College (Brooklyn)

- 1:20 1:40 PM: *Introducing k-long Numbers,* Anthony Delgado, Purchase College Advisors: Michael L. Gargano, Marty Lewinter, Joseph F. Malerba
- 1:40 2:00 PM: **Symmetries of the Five Platonic Solids**

George Kuster, Stephanie Kenny & Alicia Bridgwood, St. Joesph's College (Patchogue)

Advisor: Professor Skenderi

2:00 - 2:20 PM: Phi Patterns in Nature and Beyond

Leigh Johnson, Theresa Sampson & Heather O'Connell, St. Joseph's College (Patchogue)

Advisor: Dr. Donna Marie Pirich

2:20 - 2:40 PM: Prime Fractions: A Universe of Rings

Sohil Jain, The Bronx High School of Science • Advisor: Ms. Joanne Strauss

2:40 - 3:00 PM: "Shortcuts" and "Operations" on Figurate Numbers

Kaity Tung, The Bronx High School of Science • Advisor: Ms. Joanne Strauss

3:00 - 3:20 PM: Observing Patterns in an Array of Numbers

Amy (Chun Yun) Hsu, The Bronx High School of Science • Advisor: Ms. Joanne Strauss

#### **Contributed Posters**

The Effectiveness of the "Do Math" Approaches - the Bridge to Close the Cognitive Gap Between Arithmetic and Algebra, Violeta C. Menil and Olen Dias, Hostos Community College

The Enigma of Stanislaw Ulam: Mathematical Triumph in the Face of Brain Injury
Alexander Atwood, Suffolk County Community College

The Voynich Manuscript Revisited, Marina Vulis, University of New Haven

Sequences of Rational Approximations for the Square Roots of Certain Primes

James E. Carpenter, Iona College

**The Quadratic Formula is Actually a Special Case of a More General Formula**Ron Skurnick and Mohammad Javadi, Nassau Community College

**Where Did**  $nx^{n-1}$  **Come From?,** George H. McCormack, LaGuardia Community College

Solution of Equations of Projectile Motion Using Euler's Method

George Klimi, Pace University (NYC) & City Tech (Brooklyn) Jack Lowenthal, City Tech (Brooklyn)

Math Circles in the Metro NY Region

Ming Jack Po, Columbia University (CCNY)
Dmitry Sagalovskiy, Google
Japheth Wood, Bard College MAT Program