KENTUCKY SECTION
MATHEMATICAL ASSOCIATION OF AMERICA
ANNUAL MEETING
A Joint Meeting of the KYMAA & the AMS Southeastern Section
University of Kentucky
KYMAA March 26 – 27, 2010 & AMS March 27 – 28, 2010

Program for the Meeting

Friday, March 26

3:10 – 5:30  Registration  White Hall  341

3:10 – 5:00  Refreshments  White Hall 339

3:10 – 5:30  Book Exhibits  White Hall 341

3:40 – 3:55  Contributed Papers
Benjamin Baxter, Nick Cooper and Spencer Egart, Northern Kentucky University (u)
Kill Me Once, Shame on You. Kill Me Twice, Shame on Me
White Hall 342

Josh Sparks, Eastern Kentucky University (u)
Investigating Function Convergence Conditions to Determine Total Variation
Convergence
White Hall 343

Christopher Estes, Morehead State University (u)
Intrusion Detection in Mobile Wireless Networks Using Data Mining
Techniques
White Hall 346

Boubakari Ibrahimou, Murray State University (f)
Applying Generalized Additive Mixed Models to Air Pollution Data
White Hall 347

4:00 – 4:15  Contributed Papers
Lauren May, Morehead State University (u)
Does the Rook Card Make a Difference?
White Hall 342

Donald Adongo, Murray State University (f)
A TVD Method for Hyperbolic Conservation Laws
White Hall 343
4:00 – 4:15

**Contributed Papers**

Virgil Barnard, Kentucky State University (u)

*Interesting Graphing Methods/ Stages of Their Construction*

White Hall 346

Adam Coffman, Indiana University – Purdue University Fort Wayne (f)

*Glaeser’s Inequality on an Interval*

White Hall 347

4:15 – 4:30

**Break**

4:30 – 4:45

**Contributed Papers**

Joshua Bradley, Morehead State University (u)

*Mobile Data Mining Algorithm for the 4G Mobile Network*

White Hall 342

John Albers, Jefferson Community and Technical College (f)

*Reconciling Triangle Measurements: An Exercise in Constrained, Multivariable Optimization*

White Hall 343

Woody Burchett, Joy Neace, and Elizabeth Wiggins, Georgetown College (u)

*Predicting Behavior of Serial Criminals*

White Hall 346

Evan Boyd, Morehead State University (u)

*Ranking College Football with Random Walkers*

White Hall 347

4:50 – 5:05

**Contributed Papers**

Amanda Stevenson, Northern Kentucky University (u)

*Type I Error Rates for Statistical Tests Comparing Two Independent Samples of Quantitative Data: A Simulation Study*

White Hall 342

Timothy Schroeder, Murray State University (f)

*JSJ-decomposition of Coxeter Manifolds*

White Hall 343

Eungchun Cho, Kentucky State University (f)

*Estimating $\pi_0(X)$ from Samples on $X$*

White Hall 346

Craig Hamilton, Morehead State University (u)

*Knot Mosaics Using Hex-tiles*

White Hall 347
5:10 – 5:25 **Contributed Papers**  
Kelli Lang, Transylvania University (u)  
*The 3n+1 Algorithm and Twin Hailstones*  
White Hall 343

Biswajit Panja, Morehead State University (f)  
*Certification Scheme in Wireless Sensor Networks*  
White Hall 346

Robin Blankenship, Morehead State University (f)  
*Talking the Talk; Walking the Walk: Descriptions of an Inquiry-Based Classroom*  
White Hall 347

5:30 – 5:45 **Contributed Papers**  
Amanda Sutherland, University of Louisville (u)  
*Quaternary Representations in Phylogenetics*  
White Hall 342

Ryan Stuffelbeam, Transylvania University (f)  
*The Collatz Conjecture and the 2-adic Integers*  
White Hall 343

Julie Lang, Morehead State University (u)  
*Does the Amount of Lecture Make a Difference in Learning College Algebra?*  
White Hall 346

Duane Skaggs, Morehead State University (f)  
*Large Identifying Codes in Graphs*  
White Hall 347

6:00 – 7:30 **Banquet**  
UK Student Center - Small Ballroom

7:30 – 8:30 **Invited Address**  
Martha Siegel, Towson University  
*Undergraduate Research in Applied Mathematics for Fun and Profit*  
White Hall 118

8:30 **Aftermath**  
Hallway Outside Lecture Hall
Saturday, March 27

7:15 – 8:15  **The Noetherian Rings Breakfast**
The Noetherian Rings, an organization of women mathematics graduate students, postdocs, and faculty at the University of Kentucky, invites all female meeting participants to a breakfast in the lobby of the Mathematics Department, 7th Floor, Patterson Office Tower. For more information contact Katharine Ott, katharine.ott@uky.edu

7:45 – 11:00  **Registration**  White Hall 341

7:45 – 11:00  **Refreshments**  White Hall 339

8:00 – 11:00  **Book Exhibits**  White Hall 341

8:20 – 8:35  **Contributed Papers**
Andy Martin, Kentucky State University (f)
*The Freshman Liberal Arts Math Requirement for Students not Majoring in STEM Subjects*
White Hall 338

Omer Yayenie, Murray State University (f)
*Nonexistence of H-convex Cuspidal Standard Fundamental Domain*
White Hall 340

Robert C. Powers, University of Louisville (f)
*McGarvey's Theorem for Losers*
White Hall 342

8:40 – 8:55  **Contributed Papers**
Dhanuja Kasturiratna, Northern Kentucky University (f)
*Characterizations of Normal Distribution and Applications to Goodness-of-fit Tests*
White Hall 338

Di Wu, Western Kentucky University (f)
*A Novel Computational Method in Protein Structure Determination and Refinement*
White Hall 340

Krystal Brewington, Morehead State University (u)
*An Upper Bound for an NxN Knot Mosaic*
White Hall 342

8:55 – 9:15  **Break**
9:15 –10:05 **2010 Distinguished Teaching Award Address**
Christine Shannon, Centre College
*How To Solve It – Approximately!
David Shannon, Transylvania University
*Are All the Good Problems Solved?
White Hall 118

10:15 –10:30 **Contributed Papers**
Tyler Clark, Western Kentucky University (u)
*Collections of Mutually Disjoint Convex Subsets of a Totally Ordered Set*
White Hall 338

Jenna Torres, Northern Kentucky University (u)
*Lester Hill: Creating Long Cipher Keys*
White Hall 340

Marcia Edson, Murray State University (f)
*A New Generalization of Fibonacci Sequence & Extended Binet’s Formula*
White Hall 342

10:35 –10:50 **Contributed Papers**
Jessamyn Delgado, Morehead State University (u)
*Learning Software Evaluation: Hawkes Learning System*
White Hall 338

Chris Christensen, Northern Kentucky University (f)
*Ramping up to World War II*
White Hall 340

Andy Martin, Kentucky State University (f)
*Archimedes’ Puzzling Work: The Stomachion*
White Hall 342

10:50 –11:05 **Break**

11:05 –11:55 **AMS-MAA Invited Address**
Bruce Reznick, University of Illinois at Urbana Champaign
*The Secret Life of Polynomial Identities*
White Hall 118

12:00 – 1:00 **Luncheon**
UK Student Center- Small Ballroom

1:00 – 1:30 **Business Meeting**
UK Student Center- Small Ballroom
1:45  **KYMAA Executive Committee Meeting**

6:15 p.m.-  **Reception**
7:30 p.m.  University of Kentucky Department of Mathematics Reception
           King Alumni House

8:00 p.m.-  **Erdős Memorial Lecture**
9:00 p.m.  Doron Zeilberger, Rutgers University
           $3x+1$
           White Hall 118

Additional AMS events are listed at the AMS web site:
http://www.ams.org/amsmtgs/2162_progfull.html