

ERIC CLARK

Department of Mathematics
806 Patterson Office Tower
Lexington, KY 40506-0027
Phone: (270) 314-2632
Fax: (859) 257-4078

United States Citizen

E-mail: eclark@ms.uky.edu
Web page: www.ms.uky.edu/~eclark

EDUCATION

University of Kentucky, Lexington, Kentucky

- Ph.D., Mathematics, 2011 (expected)
 - Dissertation Title: “Permutation Statistics of the Affine Symmetric Group”
 - Advisor: Richard Ehrenborg
- M.A., Mathematics, May 2007

Transylvania University, Lexington, Kentucky

- B.A., Summa cum Laude, Mathematics, May 2005.
- B.A., Summa cum Laude, Computer Science, May 2005.

RESEARCH

Research Interests:

- Enumerative and Topological Combinatorics

AWARDS, FELLOWSHIPS, AND GRANTS

University of Kentucky, Lexington, Kentucky

- Steckler Fellowship, Fall 2009 – Spring 2010.
- Research Assistantship, Summer 2009.
- College of Arts and Sciences Certificate for Outstanding Teaching, April 2009.
- Algebra Cubed Fellowship, Fall 2007 – Summer 2008.
- Van Meter Fellowship, Fall 2007 – Spring 2008.
- Funding from National Security Agency grant H98230-06-1-0072, Summer 2006.

Transylvania University, Lexington, Kentucky

- William T. Young Scholar, 2001 – 2005.
- Hollian Society Inductee, Spring 2005.
- Omicron Delta Kappa Inductee, Spring 2004.

TEACHING EXPERIENCE

Primary Instructor: Duties included designing syllabi, writing and grading homework and exams, lecturing and leading class discussions, and holding office hours.

- *Math 201, Mathematics for Elementary School Teachers*, University of Kentucky, Spring 2009, Fall 2009.
- *Math 108R, Intermediate Algebra*, University of Kentucky, Fall 2008.
- *Math 322, Linear Algebra*, University of Kentucky, Summer 2007.
- *Math 109, College Algebra*, University of Kentucky, Fall 2006.

Recitation Leader: Duties included leading recitation sections, grading quizzes and exams, and holding office hours.

- *Math 114, Calculus II*, University of Kentucky, Spring 2007.
- *Math 123, Business Calculus*, University of Kentucky, Spring 2006.
- *Math 162, Finite Mathematics*, University of Kentucky, Fall 2005.

Algebra Cubed Fellow, Bath County High School: Duties included working one-on-one with a high school math teacher, developing conceptual lesson plans, weekly journaling, and bi-monthly group meetings.

- Algebra Cubed is the result of a GK-12 grant that brings math, science, and engineering graduate students into middle and high school classrooms in Bath and Powell county schools located in the Appalachian region of Kentucky to serve as math content specialists. The program is centered around bolstering the content knowledge of the teachers while increasing both the conceptual and procedural skills of the students. Graduate students are expected to develop conceptual lesson plans based on hands on activities that allow the students to understand the underlying mathematical principles rather than just blindly memorizing formulas. See http://www.ms.uky.edu/algebracubed/index_files/ProjectList2007_2008.htm for a collection of my lesson plans.

PRESENTATIONS AND TALKS

- “The excedance statistic for the affine symmetric group,” Discrete CATS Seminar, University of Kentucky, October 26, 2009.
- “Mathematical Magic,” with Richard Ehrenborg and Ji Yoon Jung, High School Math Day, University of Kentucky, October 17, 2009.
- “The mathematics of juggling,” with Richard Ehrenborg, Geek Week presentation, University of Kentucky, April 8, 2009.
- “An introduction to the affine symmetric group,” Discrete CATS Seminar, University of Kentucky, February 16, 2009.
- “Bluma’s method,” AMS/MAA Joint Meeting, Washington, D.C., January 7, 2009.
- “Rooks and permutations,” Graduate Student Colloquium, University of Kentucky, November 19, 2008.
- “Computing the bracket of excedance sets,” Graduate Student Combinatorics Conference, University of California – Davis, April 13, 2008.
- Algebra Cubed poster presentation (with five other Algebra Cubed Fellows), NSF GK-12 National Meeting, Washington, D.C., March 2008.
- “The excedance set of a permutation,” Master’s Exam, University of Kentucky, April 23, 2007.

PUBLICATIONS

- “Bluma’s method: A different way to solve quadratics,” *Georgia Council of Teachers of Mathematics: Reflections*, Vol. 53, No. 3 (2009), 19–21, with Richard Millman.
- “Explicit expressions for extremal excedance set statistics,” to appear in the *European Journal of Combinatorics*, doi: 10.1016/j.ejc.2008.11.014, with Richard Ehrenborg.
- “Excedances of affine permutations,” with Richard Ehrenborg, submitted to *Advances in Applied Mathematics*.
- “The Frobenius complex,” with Richard Ehrenborg, in final draft.

CONFERENCES

Attended

- AMS/MAA Joint Meetings, Washington, D.C., January 5–8, 2009 (spoke).

- Graduate Student Combinatorics Conference, University of California – Davis, April 12–13, 2008 (spoke).
- NSF GK-12 National Meeting, Washington, D.C., February 29 – March 2, 2008 (poster presentation).

Organized

- Member of the organizing committee for the 5th Graduate Student Combinatorics Conference, University of Kentucky, March 27–29, 2009.

PROFESSIONAL MEMBERSHIPS

- **American Mathematical Society**, Member, 2005 – present.

REFERENCES

- Richard Ehrenborg, Professor of Mathematics, University of Kentucky, jrge@ms.uky.edu.
- Carl Lee, Professor of Mathematics, University of Kentucky, lee@ms.uky.edu.
- Richard Millman, Professor of Mathematics, Director of CEISMC, Georgia Institute of Technology, richard.millman@CEISMC.gatech.edu (Teaching).
- Margaret Readdy, Associate Professor of Mathematics, University of Kentucky, readdy@ms.uky.edu.