

Madeline Locus Dawsey

CONTACT INFORMATION

Emory University
Department of Mathematics and Computer Science
Math and Science Center, W431
400 Dowman Drive
Atlanta, GA 30322

Mobile: (512) 293-0418

madeline.locus@emory.edu

ACADEMIC INTERESTS

partition functions, modular forms, finitary permutation groups, Chebotarev densities

EDUCATION

University of Georgia - Athens, GA

- B.S. Mathematics (August 2011 - May 2014)
- A.B. Italian, Area of Emphasis: Italian Studies (January 2012 - December 2014)

Siena Italian Studies - Siena, Italy

- Study abroad program (June 2013)
- Full Immersion: Culture, Content, and Service (FICCS)

Emory University - Atlanta, GA

Third year Ph.D. student with advisor Ken Ono

- George W. Woodruff Fellow

PUBLICATIONS

C. Frechette and M. Locus. Combinatorial properties of Rogers-Ramanujan-type identities arising from Hall-Littlewood polynomials. *Annals of Combinatorics*, Vol. 20, Issue 2 (2016) pp. 345-360.

E. Alwaise, R. Dicks, J. Friedman, L. Gu, Z. Harner, H. Larson, M. Locus, I. Wagner, and J. Weinstock. Shifted distinct-part partition identities in arithmetic progressions. Accepted. *Annals of Combinatorics*.

M. Locus and I. Wagner. Congruences for powers of the partition function. Accepted. *Annals of Combinatorics*.

M. Locus. Conjugacy growth series for finitary wreath products. *Res. Number Theory*, **3**, 7 (2017).

M. L. Dawsey. A new formula for Chebotarev Densities. Submitted to *Res. Number Theory*.

M. L. Dawsey and R. Masri. Inequalities satisfied by the Andrews spt-function. In progress.

TEACHING
EXPERIENCE

Emory University Instructor, M111 Calculus I, Fall 2017.
Emory University Instructor, M111 Calculus I, Summer 2017.
Emory University Instructor, M112 Calculus II, Spring 2017.
Emory University Instructor, M111 Calculus I, Fall 2016.
Grader, M250 Foundations of Mathematics (two sections), Spring 2016.
Calculus tutor for Emory University, 2015-2016.
Teaching Assistant, M116 Calculus II for Life Sciences (two sections), Fall 2015.
Grader, M250 Foundations of Mathematics, Fall 2015.
Lecture assistant for Emory University Math Circle, Fall 2015.

CONFERENCE
PRESENTATIONS

A new formula for Chebotarev Densities. Presentation at Palmetto Number Theory Series (PANTS) 2017 in Knoxville, TN.
Rogers-Ramanujan series arising from Hall-Littlewood polynomials. Poster at Joint Mathematics Meetings (JMM) 2015 in San Antonio, TX.

SEMINARS

University of Pennsylvania Combinatorics, Algebra, and Geometry (CAGE) Seminar, "Conjugacy Growth Series for Wreath Products of Finitary Permutation Groups," Spring 2017
Texas A&M University Number Theory Seminar, "Conjugacy Growth Series for Wreath Products of Finitary Permutation Groups," Spring 2017
University of Georgia Number Theory Seminar, "Rogers-Ramanujan Series Arising from Hall-Littlewood Polynomials," Spring 2015

AWARDS

George W. Woodruff Fellowship, Emory University, 2015-present
SEC Boyd McWhorter Scholar-Athlete of the Year Award and Postgraduate Scholarship, Southeastern Conference, 2015
NCAA Postgraduate Scholarship Award, National Collegiate Athletic Association, 2015
Sphinx Club, University of Georgia, 2014
AT&T Student Leadership Award, University of Georgia, 2014
Joel Eaves Scholar-Athlete Award, University of Georgia Athletic Department, 2013
Hollingsworth Award, University of Georgia Math Department, 2013

COMPUTING
SKILLS

Beginner experience with computing software: Maple (C, Java)