

Sami Davies

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Department of Mathematics
University of Washington

EDUCATION

University of Washington

2016 - present

Ph.D. in Mathematics

University of Illinois at Chicago

2015-2016

M.S. in Mathematics

Carnegie Mellon University

2011-2015

B.S. in Mathematical Sciences, Minor in Economics

RESEARCH INTERESTS

My research primarily focuses on the design of approximation algorithms. I am currently interested in designing cleaner, yet better algorithms for scheduling and coloring problems.

PUBLICATIONS

1. Sami Davies, Thomas Rothvoss, Yihao Zhang. "A Tale of Santa Claus, Hypergraphs and Matroids," in submission.
2. Sami Davies, Chenxiao Xue, Carl R. Yeger, "Algorithms for finding knight's tours on Aztec diamonds," *Involve, a Journal of Mathematics*, Vol. 10 (2017), No. 5, 721-734.

PRESENTATIONS

1. *On Globally Defined Solutions of the Generalized Constantin-Lax-Majda Equations*. MAA Undergraduate Poster Session: 2015 Joint Mathematics Meeting. Joint presentation with Gopal Yalla.
2. *On Globally Defined Solutions of the Generalized Constantin-Lax-Majda Equations*. 2014 Leadership Alliance National Symposium. Joint presentation with Gopal Yalla.
3. *Searching for Combinatorial Interpretations Using the Bhargava Defined Factorial*. 2013 Summer Undergraduate Applied Mathematics Institute Symposium. Joint presentation with Joe Gault.

INVITED PARTICIPATION

Women in Theory

June 2018

Leadership Alliance Summer Research Program

Summer 2014

Brown University

Examining Euler Equations. Joint work with Professor Johnny Guzman and Gopal Yalla

Summer Undergraduate Applied Mathematics Institute

Summer 2013

CMU

Patterns of the Bhargava Defined Factorial. Joint work with Joe Gault and Professor Gregory Johnson.

AWARDS AND FELLOWSHIPS

McKibben and Merner Endowed Fellowship in Mathematics University of Washington	2017-2019
Department of Mathematics, Statistics, and Computer Science Fellowship University of Illinois at Chicago	2015
Senior Leadership Recognition Award Carnegie Mellon University	2015
College and University Honors Carnegie Mellon University	2015
Leadership Alliance Scholar	2014

TEACHING

I served as a teaching assistant for the following courses.

Math 111	Algebra with Applications	UW Fall 2017
Math 124	Calculus I	UW Winter & Spring 2017
Math 126	Multivariable Calculus	UW Fall 2016
Math 121	Pre-Calculus	UIC Fall 2015 & Spring 2016
21-241	Matrices and Linear Transformations	CMU Spring 2015

MATH OUTREACH

Freedom Education Project Puget Sound Tutor fall of 2017. Course instructor summer of 2018.	2017-present
Math Circle Instructor spring of 2018.	2018-present
Association for Women in Math Member since 2016. Currently secretary of the UW student chapter.	2016-present