Jason I. Preszler

CONTACT INFORMATION

Dept. of Mathematics and Physical Sciences
The College of Idaho
Caldwell, ID

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RESEARCH INTERESTS

Machine Learning, Bayesian Statistical Modeling, Arithmetic Statistics, Algebraic Number Theory, Arithmetic Dynamics, Computational Number Theory, History of Mathematics

EDUCATION

University of Utah, Salt Lake City, Utah USA

Ph.D., Mathematics, August 2009

Dissertation: *Nilpotent Orbits of Symplectic p-Adic Lie Algebras and Quadratic Forms*
Adviser: Professor Gordan Savin
Area of Study: Algebraic Number Theory, Representation Theory

M.S., Mathematics, May 2005

University of Puget Sound, Tacoma, Washington USA

B.S., Mathematics and Computer Science, December 2002

Major: Mathematics
Minor: Computer Science
Research Project: *The Impact of Curve Shortening on the Writhe of a Curve*
Research Adviser: Professor Martin Jackson

ACADEMIC POSITIONS

The College of Idaho, *Dept. of Math. and Phys. Sci.*
Assistant Professor — **Aug. 2017 to Present**

James Madison University, *Learning Centers and Dept. of Math. and Stat.*
Mathematics Coordinator — **Aug. 2015 to June 2017**

University of Puget Sound, *Department of Mathematics and Computer Science*
Visiting Assistant Professor — July 2012 to June 2015
Visiting Instructor — July 2011 to June 2012
Part-Time Instructor — Jan. 2011 to May 2011

University of Washington, Tacoma, *Interdisciplinary Arts and Sciences*
Part-Time Lecturer — Sept. 2010 to July 2011

University of Washington, Bothell, *Center for University Studies and Programs*
Part-Time Lecturer — Sept. 2010 to Dec. 2010

Wingate University, *Department of Mathematics and Computer Science*
Visiting Assistant Professor — Aug. 2009 to July 2010

Westminster College, *Mathematics Department*
Associate Instructor — Summer 2009

University of Utah, *Department of Mathematics*
VIGRE Graduate Fellow — Spring 2009
Graduate Teaching Fellow — June 2005 to Aug. 2009
Graduate Teaching Assistant — Aug. 2003 to May 2005

Teaching Experience

The College of Idaho, Caldwell, ID USA
- Taught Sections of:
  - MAT 125 - Intro. Statistics
  - MAT 399T - Diophantine Equations
  - CSC 150 - Intro Comp. Sci.
  - CSC 270 - Applied Databases
  - MAT 370 - Geometry
  - MAT 494 - Ind. Study, various topics

James Madison University, Harrisonburg, VA USA
- Taught Sections of:
  - Math 105 - Quantitative Reasoning
  - Math 235 - Calculus I
- Organized Tutor Training in:
  - various statistics topics
  - various calculus topics
  - general tutoring techniques

University of Puget Sound, Tacoma, WA USA
- Taught multiple sections of:
  - Math 160 - Intro. Statistics
  - Math 180 - Calculus I
  - Math 181 - Calculus II
  - Math 210 - Math for Computer Science
  - Math 280 - Multivariate Calculus
  - Math 290 - Linear Algebra
- Taught single section of:
  - Math 170 - Business Calculus
  - Math 321/322 - Advanced Calculus I,II
  - Math 420 - Number Theory
  - CSci 281 - Computer Architecture and Assembly Programming
  - CSci 361 - Algorithms
  - Hon 213 - Foundations of Euclidean and Non-Euclidean Geometry

University of Washington, Tacoma, Tacoma, WA USA
- Taught multiple sections of:
  - TMATH 110 - Intro. Statistics
  - TMATH 124 - Calculus I
  - TMATH 125 - Calculus II

University of Washington, Bothell, Bothell, WA USA
- BCUSP 125 - Calculus II

Wingate University, Wingate, NC USA
- Taught multiple sections of:
  - Math 209 - Inferential Statistics
  - Math 120 - Calculus I
  - Math 116 - Quantitative Reasoning

Westminster College, Salt Lake City, Utah USA
- Math 1060 - Trigonometry

TEACHING EXPERIENCE (CONTINUED)

University of Utah, Salt Lake City, Utah USA
Taught multiple sections of:
Math 1030 - Intro. to Quantitative Reasoning
Math 1050 - College Algebra
Math 1090 - Business Algebra
Math 1100 - Business Calculus
Math 1210 - Calculus I
Taught single section of:
Math 1220 - Calculus II
Math 2250 - Linear Algebra and Ordinary Differential Equations
Math 3220 - Foundations of Analysis II

SUPERVISED STUDENT PROJECTS

Leo Trujillo, Fall 2017 Ind. Study, *Machine Learning and Emergent Reducibility*

Davis Shurbert, Spring 2015 Senior Thesis, *Computational Galois Theory*

Kevin Halasz, Spring 2014 Senior Thesis, *Probabilistic Galois Theory*

Amrei Oswald, Spring 2014 Ind. Study, *Elliptic Curves and Emergent Reducibility*

PREPRINTS AND PUBLICATIONS

An Infinite Family of Quartics with Reducible Iterates Related to the Fibonacci, Lucas, and Oblong Numbers, in preparation

An Infinite Family of Cubics with Emergent Reducibility at Depth 1, Oct. 2014, `arxiv.org/abs/1410.1800`, in *Quaestiones Mathematicae* Vol. 40 Iss. 1, 2017

PRESENTATIONS

MAPS Colloquium, College of Idaho, Oct. 2017
Statistics: Side B
JMM San Antonio, Jan. 2015
An Infinite Family of Cubic Polynomials with Emergent Reducibility at Depth 1
MAA MathFest 2014, Aug. 2014
Emergent Reducibility in Polynomials Dynamics
Math Colloquium, University of Puget Sound, Feb. 2014
Quadratic Aberrations and their Arithmetical Applications
MAA PNW Sectional, Willamette University, April 2013
Cubic Emergent Reducibility
Math Colloquium, University of Puget Sound, September 2011
What's interesting about 15015*?*
Math Seminar, Rose-Hulman Institute of Technology, June 2010
An Introduction to Arboreal Galois Representations
ScottFest, University of Puget Sound, May 2010
An Aperçu of Arboreal Galois Representations
University of Utah Graduate Colloquium
Leopoldt's Conjecture, Fall 2007
Linear and Arboreal Galois Representations, Fall 2006
Modular Forms and Number Theory, Fall 2006
Introduction to L-Functions, Fall 2005
p-Adic Numbers, Fall 2004

Baltimore Joint Meetings
Poster: *The Impact of Curve Shortening on the Writhe of a Curve*, Jan. 2003

University of Puget Sound Math/CS Day
The Impact of Curve Shortening on the Writhe of a Curve, April 2003
Introduction to Ergodic Theory, April 2003
Introduction to Gröbner Bases, April 2002
Galois Theory, April 2001

Conference Participation

ASA Conference on Statistical Practice, Feb. 2018

Association for the Tutoring Profession, March 2016

San Antonio Joint Meetings, Jan. 2015

MAA MathFest 2014, Portland OR., Aug. 2014

MAA Pacific Northwest Section Meeting, Willamette University, April 2013

IDEAs of March, University of Utah, March 2013

MAA Pacific Northwest Section Meeting, University of Portland, April 2012

ScottFest, University of Puget Sound, May 2010

Park City Mathematics Institute Summer Graduate School, July 2009

MAA MathFest 2007 in San José, CA. Aug 2007

CNTA 9 Ninth annual meeting of the Canadian Number Theory Assoc. July 2006

Baltimore Joint Meetings, attended short course on public key cryptography, Jan. 2003

AMS Western Section Meeting at the University of Utah, Oct. 2002

AMS Western Section Meeting at Portland State University, June 2002

Combinatorial Potlatch at the University of Puget Sound, Feb. 2002

San Diego Joint Meetings, attended short course on Symbolic Dynamics, Jan. 2002

MAA Pacific Northwest Section meeting at Seattle Pacific University, April 2001

Outreach Activities

South Sound Circles 2013 to 2014
Assisted with planning and facilitation of math circle activities in mathematical problem solving for Tacoma area middle school teachers

Tacoma Urban League Male Involvement Program Summer 2013
Jointly planned and led mathematical problem solving component of a 6 week summer program for middle school boys with Professor David Scott

SERVICE

James Madison University,
Chair of Learning Center's Assessment Committee, Academic Year 2015-2016
Member of Learning Center's Assessment Committee, Academic Year 2016-2017
Member of Math Department's Calculus Committee, Academic Years 2015-2017

University of Puget Sound, *Department of Mathematics and Computer Science*
Supervised Math and Computer Science tutors and graders, Fall 2012 to Spring 2014
Assisted with tenure-track Computer Science faculty searches, 2013
Assisted with temporary Computer Science faculty searches, 2012
Math and Science Summer Research proposal reviewer, 2011, 2012

University of Utah, *Math Department Graduate Student Advisory Council*
Webmaster, 2007-08
Retention, Promotion, and Tenure Subcommittee, 2005-06, 2006-07
Graduate Recruitment Subcommittee, 2006-07
Graduate Colloquium Organizer, 2004-05

PROFESSIONAL MEMBERSHIPS

American Statistical Association

TECHNICAL SKILLS

Programming: R, C, C++, Python, Java, and others

Applications: LaTeX, BibTeX, PARI-GP, SAGE, RStudio, WebWork

Operating Systems: Linux