# Joseph Brennan

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### **RESEARCH INTERESTS**

#### http://www2.math.binghamton.edu/p/people/jbrennan/research.html

Broadly, I am an algebraist and group theorist. My main research focus is on group structure with an emphasis on finite p-groups. Specifically, I am interested in maximal subgroup conditions on p-groups, metabelian p-groups, commutators and autocommutators, investigating cyclic word subgroups, and investigating the Chermak-Delgado lattice of groups.

### EMPLOYMENT

**Riley Assistant Professor** Binghamton University SUNY 8/2012 - present Postdoctoral Position

9/2012 - present

#### EDUCATION

<b>PhD</b> , Mathematics Area of Focus: Finite Group Theory	University of Florida, Gainesville, FL	May 2012 Advisor: Alexandre Turull
<b>MS</b> , Mathematics	University of Florida, Gainesville, FL	August 2008
<b>BS</b> , Mathematics	University of Florida, Gainesville, FL	May 2006

#### PUBLICATIONS

- (1) L. An, J. Brennan, H. Qu, and E. Wilcox. *Chermak-Delgado Lattice Extension Theorems*. arXiv:1307.0353. To appear, Communications in Algebra.
- (2) L. Anderson and J. Brennan. An Experiment in "Flipped" Teaching in Freshman Calculus. Submitted to PRIMUS.
- (3) J. Brennan and L.C. Kappe. On Groups with a Cyclic n-th Power Subgroup. In preparation.
- (4) L. An, J. Brennan, and H. Qu. *p*-Groups with a Simple Chermak-Delgado Lattice. In preparation.
- (5) J. Brennan. On p-Groups with an Abelian Subgroup of Index p. In preparation.

## TEACHING EXPERIENCE

Detailed teaching information can be found at

https://www2.math.binghamton.edu/p/people/jbrennan/teaching.html

#### **Binghamton University SUNY**

Riley Assistant Professor

Elementary Statistics for Biologists (lecture); spring 2013 (232 students / 5 teaching assistants). Calculus 1 (traditional); fall 2012.

Calculus 1 (flipped); fall 2013/2014 and spring 2013.

Linear Algebra; fall 2013/2014.

Number Systems (Introduction to Proofs); fall 2012.

Graduate Special Topics: Finite p-Groups; spring 2014.

**University of Florida** Graduate Student Instructor of Record

Liberal Arts Mathematics (lecture); summer 2010 (100 students / 2 teaching assistants).
Liberal Arts Mathematics 2; spring 2008 and summer 2008.
Calculus 1; summer 2009.
Calculus 2; spring 2009/2010.
Calculus 3 (lecture); fall 2011 and spring 2012 (each 200 students / 3 teaching assistants).
Calculus 3; summer 2011.

Teaching Assistant

Calculus 3; spring 2011.
Calculus 2 for Advanced Placement Students; fall 2008/2009/2010.
Calculus 1; fall 2007.
Precalculus with Trigonometry; fall 2006 and spring 2007.
Liberal Arts Mathematics 2; spring 2008.
Liberal Arts Mathematics; summer 2007.

# COMPUTER SKILLS

MAGMA, GAP, LaTeX, html, Camtasia, and course management systems (Blackboard and E-Learning)

## CONFERENCES AND TALKS

30 <sup>th</sup> Denison Zassenhaus Conference	5/2010
Attended	The Ohio State University
Zassenhaus Conference	5/2011
Talk: Generalized Blackburn Groups	Towson University
Joint Meetings AMS-MAA	1/2012
Attended (travel support through the AMS)	Boston, Massachusetts
31 <sup>st</sup> Denison Zassenhaus Conference	5/2012
Talk: <i>Classification of Conlon Groups</i>	The Ohio State University
Creitz Group Theory Conference	8/2012
Talk: Conlon and 2-generalized Blackburn Groups	Franklin & Marshall University
MAA Seaway Section Meeting	10/2012
Attended	Elmira College
<b>Binghamton University Graduate Conference Algebra/Topo</b>	blogy 11/2012
Talk: <i>Finite p-Groups</i>	Binghamton University SUNY
Invited Talk - Seminar Series	3/2013
Talk: Why Study Group Theory?	SUNY Oneonta
Zassenhaus Conference	5/2013
Talk: On p-Groups with an Abelian Subgroup Index p	Western Carolina University

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MAA Mathfest Attended (Project NeXT)	8/2013 Hartford, Connecticut			
MAA Seaway Section Meeting Talk: SUNY Binghamton's Hybrid Approach to Teaching Calculus	10/2013 SUNY Potsdam			
Joint Meetings AMS-MAA Talk: Variations on a Theme of I.D. Macdonald	1/2014 Baltimore, Maryland			
MAA Seaway Section Meeting Attended	4/2014 Buffalo State			
32 <sup>st</sup> Denison Zassenhaus Conference (Conference Organizing Committee) Talk: On CD-Simple p-Groups	5/2014 The Ohio State University			
<b>SUNY Conference on Instructional Technology</b> Talk: A Hybrid Approach to Teaching Calculus	5/2014 Cornell University			
International Conference on Groups, Rings, and Group Rings Attended (with partial support from the conference)	7/2014 Brock University, Canada			
MAA Mathfest Attended (Project NeXT)	8/2014 Portland, Oregon			
MAA Seaway Section Meeting Talk: Flipped Calculus at Binghamton University	10/2014 Alfred University			
SERVICE				
Zassenhaus Conference (2015) Organizing Committee (2014-present)				
32 <sup>nd</sup> Ohio State Denison Group Theory Conference Organizing Committee (2013-2014)				
Flipping Calculus at Binghamton SUNY Collaboration between Laura Anderson, James Pitarresi, and myself (201	13-2014)			
University of Florida Graduate Mathematics AssociationPresident (2008-2011)Founded	d Graduate Student Seminar			
<b>University of Florida Graduate Student Council</b> Mathematics Representative (2008-2011)				
Graduate Assistants United (United Faculty of Florida)Mathematics Representative (2008-2010)Bargaining Committee Co-Chair (2009-2010)2010	Graduate Student Contract			

# Invited Talk - Seminar Series

Talk: On p-Groups with an Abelian Subgroup Index p Talk: Chermak-Delgado Lattices of p-Groups Talk: Why Study p-Groups?

MAA Mathfest

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6/2013Shaanxi Normal University, Linfen, China

8/2013

#### GRANTS

<b>SUNY Innovative Instruction Technology Grants</b> Co-PI: A Hybrid Approach to Teaching Calculus	2013-2014
National Natural Science Foundation of China Visiting Scholar at Shanxi Normal University, Linfen, China; (grant # 11071150)	6/2013
AMS Graduate Student Travel Grant to the Joint Mathematics Meetings	1/2012.
Center for Applied Mathematics, Travel Grant	5/2010.

### HONORS

MAA Project NExT Fellow, 2013 - 2014.

UF Mathematics Graduate Student Teaching Award, 5/2012.

Teaching Award. Department Certificate of Merit, 4/2010.

#### REFERENCES

Alexandre Turull, Professor Mathematics, PhD Advisor, University of Florida, turull@ufl.edu

Benjamin Brewster, Professor Mathematics, Binghamton University SUNY, ben@math.binghamton.edu

Luise-Charlotte Kappe, Professor Emerita, Binghamton University SUNY, menger@math.binghamton.edu

Laura Anderson, Assoc. Professor Mathematics, Binghamton University, laura@math.binghamton.edu (teaching)

Peter Sin, Professor Mathematics, University of Florida, sin@ufl.edu

Li-Chien Shen, Professor Mathematics, University of Florida, shen@ufl.edu (teaching)