
Benjamin F Jones
Curriculum Vitae

Department of Mathematics
University of Georgia
Athens, GA 30602-7403

Phone: 706.296.5614
E-mail: bjones@math.uga.edu

EMPLOYMENT

University of Georgia, Athens, GA, USA

- Franklin Fellow Postdoc (Visiting Assistant Professor)
 - Department of Mathematics
 - Term: 2007 - 2010
-

EDUCATION

University of Notre Dame, Notre Dame, IN, USA

- Ph.D. Mathematics, August, 2007
- Thesis Title: On the Singular Chern Classes of Schubert Varieties Via Small Resolution
- Advisor: Sam Evens

University of Utah, Salt Lake City, UT, USA

- B.S. Mathematics, minor in Physics, May 2002
 - Graduated with honors: Cum Laude
-

RESEARCH INTERESTS

- Algebraic groups and related algebraic geometry
 - Representation theory of reductive groups and Lie algebras
 - Equivariant cohomology and K-theory
 - Poisson Geometry
-

PUBLICATIONS

- Brian C. Hall and B.F Jones. *Book Review: Lie theory. Lie Algebras and Representations*. Edited by Jean-Philippe Anker and Bent Ørsted, articles by Jens Jantzen and Kerl-Hermann Neeb. SIAM Review, Vol. 47 no. 3, pp. 608 – 610. September 2005.

 TEACHING EXPERIENCE

Teacher Course Evaluations are available upon request.

Visiting Assistant Professor, University of Georgia

- Math 1060: Mathematics of Decision Making, Fall 2007

Graduate Student Instructor, University of Notre Dame

- Math 13150: Freshman Seminar (liberal arts majors), Spring 2006
- Math 126: Calculus II (science and engineering majors), Fall 2004

Teaching Assistant, University of Notre Dame

- Math 115: Freshman Seminar (liberal arts majors), Spring 2005
- Math 126: Calculus II (science and engineering majors), Spring 2005
- Math 120: Calculus B (biology, pre-med, and pre-law majors), Spring 2004
- Math 119: Calculus A (biology, pre-med, and pre-law majors), Fall 2003

Notre Dame Research Experience for Undergraduates (REU)

- Graduate Assistant, Summer 2005
- Assisted on multiple research projects:
 - (1) Braid groups of graphs (lead by F. Connolly)
 - (2) Conjugacy Classes of Dihedral Subgroups in $PSL_2(\mathbb{Z})$ (Connolly)
 - (3) Three Term Recursions in the KP hierarchy (lead by M. Gekhtman)
 - (4) Spaces of Totally Non-negative Matrices (Gekhtman)

Tutor, University of Utah

- Mathematics Undergraduate Tutor, School years 2000 - 2002

 RELATED WORK EXPERIENCE

University of Utah Physics Department, High Resolution Fly's Eye Experiment, 1998 - 2002

- Data Analysis
- Software development for detector calibration
- Detector operator

Research Experience for Undergraduates

- NOAO, University of Arizona, Tucson, AZ
- Project: Measuring the Paschen β lines in merging galaxies
- Location: Kitt Peak Observatory
- Summer 2000

 SELECTED PRESENTATIONS

- *Singular Chern Classes of Schubert Cells and Varieties Via Small Resolution*, Special Session on Lie and Representation Theory, AMS 2007 Fall Southeastern Meeting, Murfreesboro, TN
- *Series of 3 talks on singular Chern classes and Schubert varieties*, UGA Algebra Seminar, September 2007
- *Singular Chern classes via small resolutions*, Invited talk, Automorphic Forms and Representation Theory Seminar, Purdue University, February 2007

- *Chern classes of Schubert cells and varieties*, Algebra Seminar, University of Notre Dame, January 2007
- *Group Compactifications*, Series of 4 talks. Algebra Seminar, University of Notre Dame, Fall 2006
- *Commuting Varieties*, Commutative Algebra and Algebraic Geometry Seminar, University of Notre Dame, March 2006
- *Deligne's Mixed Hodge Structure for Complete Varieties with Normal Crossing Singularities*. Hodge Theory Working Seminar, University of Notre Dame, April, 2005
- *Verma Module Multiplicities*, Algebra Seminar, University of Notre Dame, January, 2005
- *Survey of Hyperplane Arrangement Topology*, Felix Klein Seminar, University of Notre Dame, October 2004.
- *Littelman's Path Model for Representations*, Algebra Seminar, University of Notre Dame, December 2003

HONORS, AWARDS, AND MEMBERSHIPS

Awards and Scholarships

- Franklin Postdoctoral Fellow, University of Georgia, 2007 - Present
- Arthur J. Schmitt Fellow (presidential graduate fellowship), University of Notre Dame, 2002-2007
- Kaneb Center Outstanding Graduate Student Teacher Award, 2006
- Richard Sady Prize for best first year graduate student, 2003
- NSF Grant DMS-0303601, 2003-2006 for books and travel (with Liviu Niculescu)
- College of Science Dean's Scholarship, University of Utah, 2000 - 2001 and 2001 - 2002
- Full-Ride Scholarship in Computer Science, University of Utah, 1997 - 2000

Memberships

- American Mathematics Society, 2002-Present

CONFERENCES ATTENDED

- AMS 2007 Fall Southeastern Meeting, Murfreesboro, TN
- $SL(2, \mathbb{R})$ mini-course and SRC conference on representation theory of real reductive groups, University of Utah and Snowbird Conference Center, June 2006
- AMS Sectional Meeting, University of Notre Dame, April 2006
- Midwest Representation Theory, University of Chicago, March 2006
- Midwest Representation Theory, University of Michigan, October 2005
- Midwest Algebra, Geometry and Interactions Conference, University of Notre Dame, October 2005
- CBMS Regional Conference on Algebraic and Topological Combinatorics, August 2005
- Representation theory, Geometry and Automorphic forms, Tel-Aviv June 2005
- Geometric Representation Theory, University of Arizona, March 2005
- MRI Spring School: *Lie Groups in Analysis, Geometry and Mechanics*, Utrecht University, Utrecht, The Netherlands, Spring/Summer 2004
- Great Lakes Geometry Conference, University of Notre Dame, April 2004
- AMS Sectional Meeting, Northwestern University, October 2004
- Park City Mathematics Institute (PCMI), Undergraduate Program, Summer 2001. Topics: Quantum Field Theory, Supersymmetry, and Enumerative Geometry.

REFERENCES

Research

- Dr. Sam Evens
- Dr. Matthew Dyer
- Dr. Michael Gekhtman

Samuel.R.Evens.1@nd.edu
Matthew.J.Dyer.1@nd.edu
Michael.Gekhtman.1@nd.edu

Teaching

- Dr. Alex Himonas

himonas@nd.edu