

CONTACT
INFORMATION

The Ohio State University
Department of Mathematics
231 W 18th Ave, Columbus, OH 43210

e-mail: millerj@math.osu.edu
URL: <http://math.osu.edu/~miller.2142>

EDUCATION

The Ohio State University, Columbus, OH

Ph.D. in Mathematics, May 2014

- Dissertation: *Okounkov Bodies of Borel Orbit Closures in Wonderful Group Compactifications*
- Advisor: Dr. Gary Kennedy

M.S. in Mathematics, June 2008

B.S. in Mathematics and Philosophy, June 2005

CURRENT
POSITION

Lecturer, The Ohio State University, August 2013 – present

RESEARCH
INTERESTS

Algebraic geometry, especially group actions on varieties; in particular, spherical varieties, Okounkov bodies and convex geometry, toric varieties, flag varieties, Schubert varieties and more generally Borel orbit closures in spherical varieties, intersection theory on spherical varieties, tropical geometry

PUBLICATIONS

- *Okounkov Bodies of Borel Orbit Closures* (In Progress)
- *A Degree Formula for Borel Orbit Closures of Complete Conics* (In Progress)

CONFERENCE AND
SEMINAR TALKS

Invited Talks:

- *Toric Algebraic Geometry and Beyond*, AMS Central Fall Section Meeting, Akron, OH (October 2012)
Title: *A degree formula for Borel orbit closures in the variety of complete conics*

Contributed Talks:

- *Algebraic Geometry*, Joint Meeting of the MAA and AMS, San Antonio, TX (January 2015)
Title: *Okounkov Bodies of Borel Orbit Closures*
- *Using Flipping Pedagogy to Engage Students in Learning Mathematics*, Joint Meeting of the MAA and AMS, San Antonio, TX (January 2015)
Title: *Using Flipping Pedagogy in an Online Course*
- *Well-Formed Questions, Discovery-Based Explorations, and Their Success in Improving Student Learning*, Joint Meeting of the MAA and AMS, San Antonio, TX (January 2015)
Title: *Interactive Online Lessons using Articulate Storyline*
- *Mathematics Education*, Joint Meeting of the MAA and AMS, San Antonio, TX (January 2015)
Title: *Orient Students to your Course with a Treasure Hunt*

Other Talks:

- *Math Mondays*, Kenyon College, Kenyon, OH (March 2012)
Title: *When counting isn't easy: A brief introduction to Algebraic Geometry*
- *Algebraic Geometry Seminar*, The Ohio State University, Columbus, OH (December 2014)
Title: *Okounkov Bodies of Borel Orbit Closures*

Jason A. Miller

millerrj@math.osu.edu

SPONSORED CONFERENCES AND WORKSHOPS

- International Conference on Toric Geometry and Applications - Leuven, Belgium - June 2011 (funded by Henson Travel Fund)
- Summer Graduate School: Toric Varieties, Mathematical Sciences Research Institute - University of California, Berkeley - June 2009 (nominated by OSU, funded by MSRI)

TEACHING EXPERIENCE

Lecturer or Sole Instructor:

- *Excursion in Mathematics*
- *Excursion in Mathematics Online* (Pilot Section)
- *Mathematical Analysis for Business I*
- *Mathematical Analysis for Business II*
- *Engineering Math A*
- *Engineering Math B*
- *Ordinary and Partial Differential Equations*

Recitation Instructor:

- *Mathematics for Elementary Teachers I*
- *Mathematics for Elementary Teachers II*
- *Number and Operations for Teachers* (Pilot Section)
- *Measurement and Geometry for Teachers* (Pilot Section)
- *Excursions in Mathematics*
- *Mathematical Analysis for Business II*
- *Mathematical Analysis for Business III*
- *Calculus and Analytic Geometry I*
- *Calculus and Analytic Geometry II*
- *Calculus and Analytic Geometry III*
- *Calculus and Analytic Geometry IV*
- *Honors Calculus III for Engineers*
- *Engineering Mathematics B*
- *Ordinary and Partial Differential Equations*

Professional Development:

- *Preparing Future Faculty Fellow*

This selective program prepares OSU graduate students for academic roles which highly value teaching as well as research and includes a mentorship at one of Ohio's leading liberal arts colleges.

- Mentorship at Kenyon College with Dr. Judy Holdener (holdenerj@kenyon.edu) Winter 2012.

Other Teaching Experience:

- Mathematics and Statistics Learning Center, Ohio State University (Autumn 2008 – Spring 2009)
 - Workshop and Exam Review Leader
 - Authored Calculus II WeBWorK Workshop Solutions Manual and Leader Guide
 - Tutor for various undergraduate mathematics courses
- Private Math Tutor

Jason A. Miller

millerj@math.osu.edu

SERVICE

- *College of Arts and Sciences Online GE Course Lead - Excursions in Mathematics* (June 2013 - Present)

The Ohio State College of Arts and Sciences and the Office of Distance Education and eLearning developed an ambitious plan to create ten online general education courses in less than a year. I was selected by my department to lead the development of an online version of our mathematics for liberal arts course. I collaborated with others both within and external to my department to meet this goal, and I have been the lead instructor for the first three offerings of this course.

HONORS, AWARDS, AND FELLOWSHIPS

- Award Recipient, Phil Huneke Excellence in Teaching Award, Ohio State University Mathematics Department, 2013
- Finalist, Phil Huneke Excellence in Teaching Award, Ohio State University Mathematics Department, 2012
- Nominee, Graduate Associate Teaching Award, The Ohio State University, Autumn 2012 and Autumn 2013
- Special Graduate Assignment, OSU Math Department Fellowship, Spring 2011 and Spring 2012
- Special Summer Support, sponsored by Roy Joshua's NSA research grant, Summer 2009

PROFESSIONAL DEVELOPMENT

- AMS/MAA Joint Meetings
 - San Antonio, TX - January 2015
 - Baltimore, MD - January 2014
 - San Diego, CA - January 2013
- MAA Mathfest
 - Pittsburgh, PA - August 2010
 - Madison, WI - August 2008
- OSU-Michigan-Univ. Chicago Algebraic Geometry Conference
 - University of Michigan - Ann Arbor - Fall 2009
 - University of Michigan - Ann Arbor - Fall 2008

RESEARCH REFERENCES

- Dr. Gary Kennedy – The Ohio State University, Mansfield Campus
kennedy@math.ohio-state.edu
- Dr. Kiumars Kaveh – University of Pittsburgh
kaveh@pitt.edu
- Dr. Michel Brion – Universite de Grenoble
Michel.Brion@ujf-grenoble.fr

TEACHING REFERENCES

- Dr. Darry Andrews, Director of Math and Stat Learning Center – The Ohio State University
dandrews@math.osu.edu
- Ms. Cindy Bernlohr, Teaching Specialist – The Ohio State University
bernlohr@math.ohio-state.edu

CITIZENSHIP

United States of America