

# MATTHEW N. MASTROENI

---

CONTACT INFORMATION	Department of Mathematics Oklahoma State University 401 Math Sciences Building Stillwater, OK 74078	<code>mmastro@okstate.edu</code> <code>mmastro/github.io</code>
EMPLOYMENT	<b>Postdoctoral Fellow</b> , Oklahoma State University, 2018 – present.	
EDUCATION	<b>Ph.D. in Mathematics</b> University of Illinois at Urbana-Champaign, 2018. Thesis: <i>Betti Numbers of Koszul Algebras and Codimension Two Matrix Factorizations</i> Advisor: Hal Schenck  <b>M.S. in Mathematics</b> Syracuse University, 2012.  <b>B.A. in Mathematics</b> Ithaca College, 2009.	
RESEARCH INTERESTS	Computational and homological aspects of commutative algebra, especially the structure of free resolutions.	
PUBLICATIONS	<ol style="list-style-type: none"><li>(1) P. Mantero and M. Mastroeni. <i>Koszul algebras defined by four quadrics</i>. In preparation.</li><li>(2) M. Mastroeni, H. Schenck, and M. Stillman. <i>Quadratic Gorenstein rings and the Koszul property II</i>. In preparation.</li><li>(3) M. Mastroeni, H. Schenck, and M. Stillman. <i>Quadratic Gorenstein rings and the Koszul property I</i>. Submitted.</li><li>(4) M. Mastroeni. <i>Koszul almost complete intersections</i>. J. Algebra 501 (2018), 285–302.</li><li>(5) M. Mastroeni. <i>Matrix factorizations and singularity categories in codimension two</i>. Proc. Amer. Math. Soc. 136 (2018), no. 11, 4605–4617.</li></ol>	
INVITED TALKS	AMS Special Session on Interactions Between Combinatorics and Commutative Algebra – Fayetteville, AR	November 2018

INVITED TALKS (CONTINUED)	AMS Special Session on Commutative Algebra and Complexity – Ann Arbor, MI	October 2018
	Math Department Colloquium – Oklahoma State University	October 2018
	Algebra Seminar – University of Arkansas	April 2018
	Combinatorial and Commutative Algebra Seminar – Oklahoma State University	April 2018
	Commutative Algebra Seminar – University of Nebraska–Lincoln	April 2018
	AMS Special Session on Commutative and Combinatorial Algebra – Columbus, OH	March 2018
	AMS Special Session on Commutative Algebra in All Characteristics – San Diego, CA	January 2018
	Structures on Free Resolutions – Lubbock, TX	October 2017
HONORS AND AWARDS	<b>Departmental TA Instructional Award</b> University of Illinois Math Department, 2017.	
	■ Annual departmental award based on a teaching portfolio, student evaluations, an interview, and classroom observation.	
	<b>REGS Day Award</b> University of Illinois Math Department, 2013.	
	■ Award for the best summer research project on higher codimension matrix factorizations.	
	<b>Donald E. Kibbey Prize</b> Syracuse University Math Department, 2010.	
	<b>University Fellowship</b> Syracuse University, 2009.	
TEACHING EXPERIENCE	<b>Instructor (Oklahoma State University)</b>	
	Math 2144 Calculus 1	Fall 2018
	Math 3613 Intro to Abstract Algebra	Spring 2019
	<b>Instructor (University of Illinois)</b>	
	Math 124 Finite Mathematics	Spring 2018
	<b>Grader (University of Illinois)</b>	
	Math 416 Abstract Linear Algebra	Spring 2018

TEACHING  
EXPERIENCE  
(CONTINUED)

**Teaching Assistant (University of Illinois)**

Math 221 Calculus 1	Fall 2016, Fall 2015
Math 231 Calculus 2	Fall 2017, Spring 2016, Spring 2015, Fall 2014, Spring 2014, Spring 2013, Fall 2012
Math 241 Calculus 3	Fall 2013

**Instructor (Syracuse University)**

MAT 221 Elementary Probability and Statistics 1	Fall 2011, Spring 2011
MAT 286 Calculus for the Life Sciences	Spring 2012

**Teaching Assistant (Syracuse University)**

MAT 121 Probability and Statistics for the Liberal Arts 1	Fall 2010
--	-----------

SERVICE AND  
MENTORING  
EXPERIENCE

**Graduate Affairs Committee Member**

University of Illinois Math Department, Fall 2017 – Spring 2018.

**TA Teaching Awards Committee Member**

University of Illinois Math Department, Fall 2017.

**Seminar Organizer – Commutative Ring Theory Seminar**

University of Illinois, Fall 2014 – Spring 2018.

PROFESSIONAL  
DEVELOPMENT

Macaulay2 Workshop – University of Wisconsin Madison	April 2018
MSRI Homological Conjectures Workshop	March 2018
Stillman’s Conjecture and other Progress on Free Resolutions – UC Berkeley	July 2017
RTG Homological Conjectures in Commutative Algebra Workshop – University of Illinois Chicago	November 2016
Macaulay2 Workshop – University of Utah	May 2016
RTG Local Cohomology Workshop – University of Illinois Chicago	February 2015