

Amanda I. Beecher

Department of Mathematical Sciences Phone: (845) 938-2719
United States Military Academy Fax: (845) 938-2409
646 Swift Road, MADN-MATH e-mail: amanda.beecher@usma.edu
West Point, NY 10996

web: <http://www.dean.usma.edu/departments/math/people/Beecher/>

EDUCATION

- 2007 Ph.D. Mathematics, University at Albany, SUNY, Albany, NY
Advisor: Alexandre Tchernev
Title: *Combinatorial Description of a Free Resolution of a Multigraded Module*
- 2003 M.A. Mathematics, University at Albany, SUNY, Albany, NY
- 2001 B.A. Mathematics, University at Albany, SUNY, Albany, NY

RESEARCH INTERESTS

Commutative Algebra, Algebraic Combinatorics, Algebraic Geometry

PUBLICATIONS AND PREPRINTS

Upper Bounds for Betti Numbers of Multigraded Modules
J. Algebra **316** (2007), no. 1, 453–458.

A multigraded resolution from broken circuit complexes
preprint.

TEACHING EXPERIENCE

University at Albany
1400 Washington Ave.
Albany, NY 12222

Catalog Name	Course Title	Semester Taught
Math 101	Algebra and Calculus I	Fall 2002, Spring 2003
Math 108	Elementary Statistics	Summer 2003
Math 111	Algebra and Calculus II	Fall 2003, Spring 2004
Math 112	Calculus I	Fall 2004, Summer 2005, Fall 2006
Math 113	Calculus II	Fall 2005, Spring 2005, 2006, 2007
Math 214	Multivariable Calculus	Fall 2006

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Catalog Name	Course Title	Semester Taught
Math 103	Mathematical Modeling	Fall 2007, Fall 2008
Math 104	Differential Calculus	Spring 2008

INVITED TALKS

1. *TBD*
Route 81 Conference,
Queens University, Kingston, ON, October 2008.
2. *Free modules of a multigraded resolution*
Special Session on Hilbert Functions and Free Resolutions,
Vancouver, BC, October 2008.
3. *Tutte Polynomial*
Summer Undergraduate Research Experience,
State University of New York College at Potsdam, Potsdam, NY,
June 2007.
4. *Matroid Theory*
Graduate Student Combinatorics Conference,
University of Washington, Seattle, WA, April 2007.
5. *Combinatorial topology of matroids and free resolutions of multi-graded modules.*
Special Session on Commutative Algebra and Algebraic Geometry,
Davidson, NC, March 2007.
6. *A Free Resolution from Simplicial Complexes*
Capital Region Algebra and Number Theory Seminar,
University at Albany, SUNY, Albany, NY, November 2006.
7. *A Combinatorial Description of a Free Resolution of a finite Multi-graded Module*
Route 81 Conference,
Syracuse University, Syracuse, NY, September 2006.
8. *Betti Numbers of Finite Multigraded Modules*
Workshop on Free Resolutions,
Cornell University, Ithaca, NY, 2006.
9. *Bounds for Betti Numbers of Multigraded Modules*
Capital Region Algebra and Number Theory Seminar,
Skidmore College, Saratoga Springs, NY, November 2005.

CONFERENCES AND WORKSHOPS ATTENDED

1. *Route 81 Conference*
Queens University, Kingston, ON, October 2008.

2. *AMS Fall Western Section Meeting*
Vancouver, BC, October 2008.
3. *Discrete Math Day*
Stevens Institute, Hoboken, NJ, June 2008.
4. *Discrete Math Day*
College of Holy Cross, Worcester, MA, November 2006.
5. *Discrete Math Day*
Skidmore College, Saratoga Springs, NY, September 2006.
6. *Route 81 Conference*
Syracuse University, Syracuse, NY, September 2006.
7. *Fields Institute Summer School & Conference on
Valuation Theory and Integral Closure in Commutative Algebra*
University of Ottawa, Ottawa, ON, CA, July 2006.
8. *Summer School on Free Resolutions of Monomial Ideals*
Cornell University, Ithaca, NY, May 2006.
9. *Discrete Math Day*
University at Albany, Albany, NY, March 2006.
10. *Route 81 Conference*
Queen's University, Kingston, ON, CA, October 2005.
11. *1009th AMS meeting*
Bard College, Annandale-on-Hudson, NY, October 2005.
12. *Nebraska Commutative Algebra Conference: WiegandFest*
University of Nebraska - Lincoln, Lincoln, NE, May 2005.
13. *30th Annual Spring Lecture Series in Mathematical Sciences*
Commutative Algebra: Recent Developments in Tight Closure
University of Arkansas, Fayetteville, AR, April 2005.
14. *Route 81 Conference, in honor of Graham Evans*
Cornell University, Ithaca, NY, October 2004.
15. *CBMS Conference on Non-Positive Curvature in Group Theory*
Rensselaerville Institute, Rensselaerville, NY, August 2004.
16. *Albany Group Theory Conference*
Rensselaerville Institute, Rensselaerville, NY, October 2004.
17. *Albany Group Theory Conference*
Rensselaerville Institute, Rensselaerville, NY, October 2004.

SERVICE AND MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Faculty Council Junior Rotating Voting Member, Fall 2008-present
- Facilitator,
Professional Military Ethic Education, Fall 2007-present

- Coordinator,
Graduate Student Seminar, Fall 2004- Spring 2006
- Graduate Student Coordinator,
Noetherian Ring Seminar, Fall 2005-Spring 2006
- *American Mathematical Society*
- *Association for Women in Mathematics*
- *Mathematical Association of America*
- *Pi Mu Epsilon*

AWARDS

Excellence in Teaching for Teaching Assistants, University at Albany, Fall 2003.