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EDUCATION

Ph.D. in Mathematics, University of Michigan, 1996
> Thesis advisor: Melvin Hochster
> Dissertation: *Tight closure, plus closure and Frobenius closure in homogeneous coordinate rings of certain elliptic curves*

M.S., University of Michigan, 1992

A.B. (summa cum laude, with honors in math), Bryn Mawr College, 1988
> (coursework in mathematics, Sommerville College, Oxford University, 1986-1987)

RESEARCH INTERESTS

Commutative Algebra, Computational Algebra

PROFESSIONAL EXPERIENCE

Syracuse University, Associate Teaching Professor & Assistant Chair, 2019-current

Syracuse University, Assisstant Teaching Professor & Assistant Chair, 2018-2019

Syracuse University, Assistant Professor & Assistant Chair, 2007-2018

Hobart & William Smith Colleges, Visiting Assistant Professor, 2006-2007

Department of Mathematics and Computer Science, Gustavus Adolphus College
> Associate Professor, 2004-2007
> Assistant Professor, 1998-2004

Syracuse University, Visiting Researcher, 2004-2005

University of Kansas, Visiting Researcher, Spring 2002

Department of Mathematics, Bowdoin College
> Visiting Assistant Professor, 1996 - 1998

Department of Mathematics, University of Michigan
> Associate Coordinator of Professional Development (Fall 1995)
> Instructor Training (Summer 1995)
> Graduate Student Instructor, calculus, (Fall 1994, Spring 1994, Fall 1993)

PUBLICATIONS

Hilbert-Kunz functions for normal rings, with C. Huneke and P. Monsky,
> Math. Res. Letters **11** (2004), no. 4, 539-546.

Test ideals in diagonal hypersurface rings II, Journal of Algebra, **264** (2003), no. 1, 296-304.

PUBLICATIONS (continued)

Active Learning in Abstract Algebra: An Arsenal of Techniques, with S. Belcastro
and L. Burton, in Innovations in Teaching Abstract Algebra, eds. Allen C.
Hibbard and Ellen Parker, MAA Notes, 60, MAA, Washington, D.C., 2002.

Test ideals in diagonal hypersurface rings, Journal of Algebra **237** (2001), no. 1, 38-48.

Tight closure, plus closure and Frobenius closure in cubical cones,
Trans. Amer. Math. Soc. **352** (2000), no. 1, 95-114.

Regular closure, Proc. Amer. Math. Soc. **127** (1999), no. 7, 1975-1979.

Strongly bounded rings, Journal of Algebra **199** (1998), no. 2, 690-702.

FELLOWSHIPS AND AWARDS

Project NExT Fellow, 1997-1998

Rackham Dissertation Fellowship, Spring 1996

U.S. Department of Education Fellowship, 1990-1993

Anna Pell Wheeler Prize in Mathematics, Bryn Mawr College, 1988

FUNDING

MAA CoMInDS Summer Workshop, July 2018.

Summer Institute for Technology-Enhanced Teaching and Learning, Syracuse University, June 2013.

AMS travel grant to attend International Congress of Mathematicians, August 2006.

IAS/Park City Mathematics Institute, UG Faculty Program, funded participant, June, 2005.

NSF-AWM Mentoring Travel Grant, June, 2003. (Up to 7 awarded each year.)

MSRI workshop (2), funded participant, December, 2002 and February, 2003.

NSF-AWM International Travel Grant, 2002.

Gustavus Adolphus Bush Summer Teaching Workshop, Fellow, 2001.

Gustavus Adolphus Research Scholarship & Creativity Grant, 2000.

Gustavus Adolphus J-term focus grant, January, 2000.

AWM Workshop at MSRI, funded postdoctoral participant, July, 1999.

Rocky Mountain Mathematics Consortium Summer Conference, funded participant, June, 1999.

COCOA, International School, funded participant, June, 1999.

AWM Workshop at Joint Meetings, funded postdoctoral participant, January, 1999.

(8 awarded each year.)

MSRI Introductory Workshop, funded participant, August, 1998.

AWM Workshop at MSRI, funded postdoctoral participant, July, 1996.

INVITED PARTICIPATION IN CONFERENCES (participation by invitation only)

Commutative Algebra: Homological and Birational Theory, September 11 - 16, 2004,
Banff International Research Station for Mathematical Innovation and Discovery (BIRS).

PRESENTATIONS
Research Presentations at Professional Meetings

AMS Special Session on Hilbert Functions and Resolutions, invited talk,
  AMS Western Section Meeting, San Francisco, California, April, 2006.

AMS Special Session on Commutative Algebra, invited talk,
  Joint Mathematics Meeting, Atlanta, January, 2005.

CMS Special Session on Commutative Algebra, invited talk,
  Canadian Mathematical Society, Montreal, Quebec, December, 2004.

Current Trends in Commutative Algebra, contributed talk,
  Centro Internazionale di Ricerca Matematica, Levico, Italy, June, 2002.

AMS Special Session on Commutative Algebra, invited talk,
  AMS Central Section Meeting, Ann Arbor, Michigan, March, 2002.

AMS Special Session on Commutative Algebra, invited talk,
  AMS Eastern Section Meeting, Williamstown, Massachusetts, October, 2001.

AMS Special Session on Commutative Algebra, invited talk,
  AMS Central Section Meeting, Lawrence, Kansas, May, 2001.

Midwest Algebraic Geometry Conference, contributed talk,
  University of Missouri, Columbia, Missouri, October, 1999.

Olga Taussky Todd Celebration at MSRI, poster, funded participant,
  Berkeley, California, July, 1999.

AMS Special Session on Commutative Algebra and Algebraic Geometry, invited talk,
  Joint Meetings, San Antonio, Texas, January, 1999.

AWM Workshop, Research Talks by Recent Ph.D.'s,
  Joint Meetings, San Antonio, Texas, January, 1999.

AMS Special Session on Commutative Algebra, invited talk,
  Joint Meetings, Baltimore, Maryland, January, 1998.

AMS-MAA Session on Computations in Commutative Algebra, invited talk,
  Joint Meetings, Seattle, Washington, August, 1996.

Julia Robinson Celebration at MSRI, poster, funded participant,
  Berkeley, California, July, 1996.

AMS Special Session on Commutative Algebra, invited talk,
  Joint Meetings, Orlando, Florida, January, 1996.

Research Presentations at Other Institutions

Algebraic Geometry seminar, Queen's University, Ontario, February, 2005

Algebra seminar, University of Nebraska - Lincoln, January, 2005.

Algebra seminar, Syracuse University, October, 2004.

Algebra seminar, University of Kansas, June, 2003.

Algebra seminar, University of Kansas, May, 2002.

Commutative Algebra and Algebraic Geometry seminar, University of Minnesota, April, 2000.

Valley Geometry Seminar, invited talk, Five College Consortium, March, 1997.

PRESENTATIONS (continued)

Colloquia and Seminars for General or Undergraduate Audience

Mathematics Seminar, Hobart & William Smith Colleges, October, 2006.

Mathematics and Computer Science Seminar, Gustavus Adolphus College, November, 2005

Mathematics and Computer Science Colloquium, Carleton College, April, 2000.

Faculty Shoptalk, Gustavus Adolphus College, March, 2000.

Mathematics and Computer Science Department Colloquium, Colby College, November, 1997.

Mathematics and Statistics Department Colloquium, Swarthmore College, October, 1997.

Bowdoin-Bates Mathematics Seminar, Bates College, March, 1997.

Other Presentations

Project NExT panel, Strategies for making and sustaining research
collaborations as a faculty member in a small department, panelist, Joint Meetings,
New Orleans, Louisiana, January 2007.

MAA Session on Innovations in Teaching Abstract Algebra, contributed talk,
Joint Meetings, San Antonio, Texas, January, 1999.

Project NExT session on assessment, contributed talk,
Mathfest, Toronto, Ontario, July, 1998.

Outreach

Workshop for high school math teachers, Sonia Kovalevsky Festival,
Syracuse University, November, 2004.

TEACHING

Syracuse University

Precalculus, Calculus I, II, & III (for engineers), Introduction of Abstract Mathematics,
Business Calculus, Life Sciences Calculus I & II,
First Course in Linear Algebra, Introduction to Ordinary Differential Equations
Second Course in Linear Algebra, Introduction to Abstract Algebra

Hobart & William Smith Colleges

Calclulus I, Discovering in Mathematics, Precalculus

Gustavus Adolphus College

Calculus I, Calculus II, Discrete Math for Computer Science, Introduction to Computer
Science I Lab, Modern Algebra, Modern Algebra II, Problem Solving,
Women in Science, Cryptanalysis, Mathematics Research Immersion, Mathematics of
Phylogenetics

Bowdoin College

Calculus I, Calculus II, Introduction to Abstract Algebra

INSTITUTIONAL SERVICE

Marshall Scholarship Finalist mock interview
>   Dina Eldawy (2018)

ITA Language Assessment Committee, 2018.

Ph.D. Dissertation Committee, Syracuse University, Math Education
>   Krystal Barber (2016), Thembinkosi Mkhatshwa (2016), Victoria Wambua (2018)

WiSE Preparing Future Faculty, Syracuse University
>   Faculty reviewer of two Ph.D. students' portfolios, 2016.

Ad Hoc Hiring Committee
>   to fill non-tenure track Calculus Coordinator position, 2016.

PROFESSIONAL SERVICE

Refereed proposals for the National Science Foundation

Referee for Proceedings of the A.M.S and Journal of Algebra

Mentor, AWM Workshop for Women Graduate Students and Recent Ph.D.'s,
>   Joint Meetings, San Antonio, January 2006

Co-organizer, AWM Workshop for Women Graduate Students and Recent Ph.D.'s,
>   Joint Meetings, New Orleans, January 2007

Mentor, AWM Workshop for Women Graduate Students and Recent Ph.D.'s,
>   Joint Meetings, New Orleans, January 2008

Co-creator of http://www.commalg.org, a resource for commutative algebra