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AREAS OF INTEREST

Algebraic Geometry, String Theory, Homological Algebra

POSITIONS HELD

Tenure Track Assistant Professor <i>University of Wisconsin-Madison, WI</i>	2005---present
NSF Postdoctoral Fellow/University Lecturer <i>University of Pennsylvania, Philadelphia, PA</i>	2002---2005
Visiting Assistant Professor <i>University of Massachusetts, Amherst, MA</i>	2000—2002

AWARDS

NSF Research Grant <i>Research grant for travel, visitors, research expenses, and summer salary.</i>	2006-2009
NSF Postdoctoral Fellowship <i>Research award.</i>	2002-2005
Intel Prize <i>Awarded to outstanding students at the Hebrew University.</i>	Summer 1993
“Amirim” Fellowship, Hebrew University	1991-1993.
International Computer Science Olympiad <i>Won silver medal representing Romania in the second International Computer Science Olympiad held in Minsk, USSR.</i>	Spring 1990

PH. D. THESIS

Title: “Derived categories of twisted sheaves on Calabi-Yau manifolds”	May 2000
Advisor: Dr. Mark Gross <i>University of California at San Diego</i>	

EDUCATION

Ph.D. (Mathematics) <i>Cornell University, Ithaca, NY</i> Areas of interest: algebraic geometry, string theory.	May 2000
Master of Science (Computer Science) <i>Cornell University, Ithaca, NY</i> Concentrations: theoretical computer science and cryptography.	May 2000
Bachelor of Science (Mathematics and Computer Science) <i>Hebrew University, Jerusalem, Israel</i> Graduated Summa Cum Laude with a double major in mathematics and computer science.	July 1993

PAPERS

“Non-birational twisted derived equivalences in abelian GLSMs”
(with Jacques Distler, Simeon Hellerman, Tony Pantev and Eric Sharpe)
preprint arXiv:0709.3855

“The Mukai pairing, I: a categorical approach”
(with Simon Willerton)
preprint arXiv:0707.2052; under review at Inventiones Math.

“The Pfaffian-Grassmannian derived equivalence”
(with Lev Borisov)
to appear, Journal of Algebraic Geometry (math.AG/0608404)

“Non-birational Calabi-Yau threefolds that are derived equivalent”
Internat. J. Math. 18 (2007), No. 5, 491-504 (math.AG/0601232)

“Derived categories: a skimming”
Snowbird Lectures in Algebraic Geometry, Contemporary Mathematics no. 388 (2005), 43-75
(math.AG/0501094)

“The Mukai pairing, II: the Hochschild-Kostant-Rosenberg isomorphism”
Adv. in Math., 194 (2005), no. 1, 34-66 (math.AG/0308080)

“The Mukai pairing, I: the Hochschild structure”
preprint math.AG/0308079, superseded by arXiv:0707.2052

“Algebraic deformations arising from orbifolds with discrete torsion”
(with Anthony Giaquinto, Sarah Witherspoon)
J. Pure Appl. Algebra, **187** (2004), no. 1-3, 51-70 (math.KT/0210027)

“D-Branes, B-fields, and Ext groups”
(with Sheldon Katz, Eric Sharpe)
Adv. Theor. Math. Phys., 7 (2003), no. 3, 381-404 (hep-th/0302099)

“Fiberwise stable bundles on elliptic fibrations with relative Picard number one”
CR Acad. Sci. Paris Ser. I, 334 (2002), no. 6, 469-472 (math.AG/0601234)

“Non-fine moduli spaces of sheaves on K3 surfaces”
Internat. Math. Res. Notices 2002 (2002), no. 20, 1027-1056 (math.AG/0108180)

“Derived categories of twisted sheaves on elliptic threefolds”
J. reine angew. Math. (Crelle’s Journal) 544 (2002), 161-179 (math.AG/0012083)

“Derived categories of twisted sheaves on Calabi-Yau manifolds”
Ph.D. thesis, Cornell University, (2000)

“Non-flat base change and the orbifold HKR isomorphism”
in preparation

“On an example of Vafa and Witten”
in preparation

“Orbifold Hochschild products”
in preparation

“Duflo + Cardy = Riemann-Roch”
in preparation

SELECTED INVITED LECTURES	Western Algebraic Geometry Seminar (WAGS) <i>Colorado State University, Fort Collins, CO</i>	October 2007
	AMS regional meeting <i>University of Illinois at Chicago, Chicago, IL</i>	October 2007
	Hochschild Cohomology of Algebras: Structure and Applications <i>Workshop at the Banff International Research Station, Canada</i>	September 2007
	Non-linear Integral Transforms: Fourier and Nahm <i>Workshop at the Centre de recherches mathématiques, Montréal, Canada</i>	September 2007
	Derived Categories in Mathematics and Physics <i>AMS Summer Research Conference, Snowbird, UT</i>	June 2007
	Workshop on Homological Mirror Symmetry and Applications <i>Institute for Advanced Studies, Princeton, NJ</i>	January 2007
	AMS Regional Meeting <i>University of Utah, Salt Lake City, UT</i>	October 2006
	Workshop on Algebraic Geometry and Physics <i>Erwin Schrödinger Institut für Mathematische Physik, Vienna, Austria</i>	May 2006
	Generalized McKay correspondences and representation theory <i>MSRI, Berkeley, CA</i>	March 2006
	Recent developments in higher dimensional algebraic geometry <i>Japan-U.S. Mathematics Institute, Johns Hopkins University, Baltimore, MD</i>	March 2006
	Thick subcategories of triangulated categories mini-workshop <i>Mathematisches Forschungsinstitut Oberwolfach, Germany</i>	February 2006
	Algebraic geometry seminars <i>University of Illinois at Chicago, University of Illinois at Urbana-Champaign, University of Minnesota</i>	November 2005
	Progress in algebraic geometry inspired by physics <i>Workshop at the Banff International Research Station, Canada</i>	October 2005
	Summer institute in algebraic geometry <i>University of Washington, Seattle, WA</i>	July 2005
	Algebraic geometry and categories <i>Conference in honor of André Hirschowitz' 60th Birthday, Nice, France</i>	June 2005
	Mirror symmetry workshop , <i>Perimeter Institute, Canada</i>	November 2004
Algebraic geometry seminar , <i>Harvard University</i>	November 2004	
High energy physics seminar , <i>Rutgers University, New Jersey</i>	October 2004	
Fall school on algebraic geometry <i>Six lecture course held at school in Łukecin, Poland</i>	September 2004	

Algebraic geometry: presentations by young researchers <i>Snowbird, UT</i>	July 2004
AMS regional meeting <i>Ryder University, NJ</i>	April 2004
Algebraic geometry seminars <i>Northwestern University, University of Chicago</i>	March 2004
Algebraic geometry seminars <i>Princeton University, University of Texas at Austin</i>	February 2004
EAGER (European algebraic geometry conference) 2003 <i>Aussois, France</i>	September 2003
Workshop on algebraic structures and moduli spaces <i>Centre de recherches mathématiques, Montréal, Canada</i>	July 2003
Euro Conference on vector bundles on algebraic curves <i>Porto, Portugal</i>	July 2003
Workshop on Algebraic Geometry and Physics, Salamanca, Spain	June 2003

**TEACHING
EXPERIENCE**

Instructor <i>University of Utah summer school on Derived Categories</i> One of the primary instructors for the summer school, which was aimed at introducing graduate students and post-doctoral fellows to advanced topics in derived categories and physics	June 2007
Assistant Professor <i>University of Wisconsin-Madison</i> Professor for several graduate courses, as well as large introductory courses for undergraduate students	2005-present
Lead Instructor <i>Lakecein fall school for advanced graduate students</i> One of two principal lecturers at the school, presenting six lectures introducing graduate students to current areas of research	2004
University Lecturer <i>University of Pennsylvania, Philadelphia, PA.</i> Instructor for various courses at graduate level (topics course on derived categories in algebraic geometry) and undergraduate level.	2002--2005
Visiting Assistant Professor <i>University of Massachusetts, Amherst, MA.</i> Taught Calculus sequence, both regular and Honor sections, as well as higher level courses.	2000--2002
Teaching Assistant <i>Cornell University, Ithaca, NY and Columbia University, New York, NY.</i>	1994–1998

SERVICE**Organizer**

Algebraic Geometry Seminar -- UW-Madison

Referee

Various journals, including Inventiones Mathematicae,
Duke Mathematical Journal, Advances in Mathematics,
Communications in Mathematical Physics

Committee Member

Undergraduate Teaching Committee – UW-Madison

ACADEMIC**EXPERIENCE**

Lukecin autumn school – Lead teacher

Fall 2004

Oberwolfach Mathematics Institute – Invited participant

2003, 2006

Isaac Newton Institute – Long-term resident

Summer 2002

Mathematics Institute, Warwick University – Visiting scholar

Summer & Fall 1998

Columbia University – Exchange Scholar

Spring 1998, 1999