

Curriculum Vitæ

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Personal Data

Date of Birth: June 19, 1980; Petritch, Bulgaria.

Employment

2008-Present Instructor, Princeton University
2009 MSRI Research Postdoc

Education

2005-200 PhD in Mathematics - University of Utah, Salt Lake City, UT.
Advisors: Professor Aaron Bertram and Professor Christopher Hacon.
2003-2005 MA in Mathematics- University of Utah, Salt Lake City, UT.
1999-2003 LAUREA in Mathematics - Università degli Studi di Bologna, Bologna, Italy.
Dissertation: "Elliptic surfaces"
Advisor: Professor Angelo Vistoli.

Honors

2001 Undergraduate scholarship - University of Bologna.
2003 Outstanding Undergraduate Student Award - University of Bologna.
2007/2008 Graduate Research Fellowship - University of Utah.

Publications/Works in Progress

- *Pluricanonical maps for threefolds of general type.*
(Annales de l'Institut Fourier **57** (2007), no. 4, 1315–1330, arXiv:math/0512346.)
- *Evaluating tautological classes using only Hurwitz numbers (joint with A. Bertram and R. Cavalieri)*
(Transactions of the American Mathematical Society **360** (2008), no. 4, 6103–6111, arXiv:math/0608656)
- *D-branes, obstructed curves, and minimal model superpotentials.*
(submitted to Advances in Theoretical and Mathematical Physics, arXiv:0709.4673.)
- *Effective log Iitaka fibrations for surfaces and threefolds*
(Submitted, arXiv:0805.3494).
- *The crepant resolution conjecture for a partial resolution. (joint with Renzo Cavalieri)*
In preparation.

- *Effective Itaka fibration in Kodairacodimension two (joint with Chenyan Xu)*
In preperation.

Talks and Seminars

Fall 2005 GSAC Colloquium, University of Utah.

Minimal model program.

Fall 2005 Algebraic Geometry Seminar, University of Utah.

On the pluricanonical maps for threefolds.

Spring 2006 GSAC Colloquium, University of Utah.

Open and closed topological quantum field theories.

Spring 2006 Commutative Algebra Seminar, University of Utah.

A_∞ -algebras and categories.

Spring 2006 Moduli Space of Curves and Gromov-Witten Theory Workshop, University of Michigan.

Introduction to the tautological ring.

Spring 2007 Gromov-Witten Seminar, University of Utah.

Givental's formalism.

Fall 2007 Gromov-Witten Seminar, University of Utah.

BPS state count after Pandahripande and Thomas.

Fall 2007 Algebraic Geometry Seminar, University of Utah.

Bounding the denominators of the moduli part of the log canonical bundle formula and applications.

2008 UIC, University of Michigan, Princeton University, Columbia University, Colorado State.

Pluricanonical maps on threefolds

Teaching

Fall 2003: Math 1210, Calculus I (TA for Professor Jim Keener), University of Utah.

Spring 2004: Math 1220, Calculus II, University of Utah.

Fall 2004 - Spring 2005: Math 1090, Business Algebra, University of Utah.

Fall 2005: Math 1060, Trigonometry, University of Utah.

Fall 2006: Math 2210, Calculus III, University of Utah.

Fall 2006: Math 2210, Calculus III, University of Utah.

Spring 2007: Math 2250, ODE and Linear Algebra, TA, University of Utah.

Summer 2008: Math 1090, Business Algebra, University of Utah.

Fall 2008: MAT 104, Princeton University.

School/Conferences Attended

Spring 2003 Bologna, Italy.

Workshop on K-theory

Spring 2004 University of Utah, Salt Lake City, UT.

Western Algebraic Geometry Seminar.

Summer 2004 University of Oregon, Eugene, OR.
Workshop on hyperplane arrangements.

Fall 2004 Colorado State University, Fort Collins, CO.
Western Algebraic Geometry Seminar.

Summer 2005 Université de Nice Sophia-Antipolis, Nice, France
Algebraic Geometry and Categories

Summer 2005 University of Washington, Seattle, WA.
Graduate Student Warm-Up Workshop in Algebraic Geometry.

Summer 2005 University of Washington, Seattle, WA.
Summer Institute in Algebraic Geometry.

Fall 2005 University of Michigan, Ann Arbor, MI.
Workshop on higher-dimensional birational geometry.

Fall 2005 University of Utah, Salt Lake City, UT.
Western Algebraic Geometry Seminar.

Spring 2006 University of California, Barkley, CA.
Summer Western Algebraic Geometry Seminar.

Summer 2006 Mathematical Sciences Research Institute, Barkley, CA.
New Developments in the Geometry and Physics of Gromov-Witten Theory.

Fall 2006 University of Utah, Salt Lake City, UT.
Western Algebraic Geometry Seminar.

Fall 2006 University of Utah, Salt Lake City, UT.
American Mathematical Society sectional meeting.

Spring 2007 MSRI, Barkley, CA.
Hot Topics: Minimal and Canonical Models in Algebraic Geometry.

Spring 2007 University of Washington, Seattle, WA.
Western Algebraic Geometry Seminar.

Spring 2007 Clay Research Conference at CMI, Cambridge, MA.

Spring 2007 Clay Research Institute, Cambridge, MA
Workshop on Recent Developments in Higher-dimensional Algebraic Geometry.

Summer 2007 University of Utah, Salt Lake City, UT
VIGRE Mini-Course on Derived Categories.

Summer 2007 Snowbird Resort, Snowbird, UT
Derived Categories in Mathematics and Physics.

Fall 2007 Colorado State University, Fort Collins, CO.
Western Algebraic Geometry Seminar.

Summer 2008 Institute for Advanced Study, Park City Mathematics Institute
Analytic and Algebraic geometry