

CURRICULUM VITAE
PAOLO CASCINI

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Personal Data

- **Citizenship** - Italian.
- **Current Status** - U.S. Permanent Resident.

Research Interests

- **Algebraic Geometry** - Birational Geometry, Minimal Model Program.
- **Several Complex Variables** - Kähler Manifolds.

Education

- **Università di Firenze** – Firenze, Italy
Mathematics, B.S. (1998), M.S. (2000).
- **Courant Institute of Mathematical Sciences, New York University** – New York, NY
Mathematics, M.S. (2002), Ph.D. (2004) (Advisor: Prof. F.A. Bogomolov).

Appointments

- 2007– present; **University of California at Santa Barbara** - Assistant Professor.
- 2004 – 07; **University of California at Santa Barbara** - Visiting Assistant Professor.

Awards

- **A.P. Sloan Fellowship**, 2008.
- **Wilhelm T. Magnus Prize** for Significant Contributions to Mathematical Sciences
Courant Institute, New York University, 2005.
- Awarded 5-year **McCracken Fellowship** Program to pursue Ph.D. in Mathematics
(2000-2004) at New York University.

Selected Publications

- (with C. Birkar, C. Hacon, J. M^c Kernan) *Existence of Minimal Models for Varieties of Log General Type*,
math.AG/0610203.

- (with M. Nakamaye) *Seshadri Constants on Smooth Three-folds*, Submitted.
- (with G. La Nave) *Kähler-Ricci Flow and the Minimal Model Program for Projective Varieties*, Submitted.
- *Subsheaves of the Cotangent Bundle*, Central European Journal of Math. 4 (2006), no. 2, 209–224.
- (with F.A. Bogomolov and B. de Oliveira) *Singularities on Complete Algebraic Varieties*, Central European Journal of Math. 4 (2006), no. 2, 194–208.
- *On the moduli space of the Schwarzenberger bundles*, Pacific J. Math. 205 (2002), no. 2, 311–323.
- *Weighted Tango Bundles on \mathbb{P}^n and their moduli spaces*, Forum Math. 13 (2001), no. 2, 251–260.

Invited Talks

- Harvard/MIT Algebraic Geometry Seminar, MIT, May 6, 2008
Title: *"On the Minimal Model Program"*.
- Algebraic Geometry Seminar, University of Michigan, Apr. 16, 2008
Title: *"On the Minimal Model Program"*.
- AMS Meeting, Bloomington, Apr. 6, 2008
Title: *"On the Minimal Model Program"*.
- Algebraic Geometry Seminar, University of Chicago, Mar. 12, 2008
Title: *"On the Minimal Model Program"*.
- AMS Meeting, Albuquerque, Oct. 13, 2007
Title: *"On the Minimal Model Program"*.
- Mini-Course in Algebraic Geometry, National Tsing Hua University, July 3-7, 2007
Title: *"Finite Generation of the Canonical Ring I, II, III & IV"*.
- Algebraic Geometry Seminar, University of Massachusetts, May 6, 2007
Title: *"Finite Generation of the Canonical Ring"*.
- Colloquium, University of Massachusetts, May 5, 2007
Title: *"On the Minimal Model Program"*.
- Colloquium, Yeshiva University, Feb. 27, 2007
Title: *"On the Minimal Model Program"*.
- Colloquium, Stony Brook University, Feb. 26, 2007
Title: *"On the Minimal Model Program"*.

- Southern California Algebraic Geometry Seminar, San Diego, Feb. 24, 2007
Title: *"Finite Generation of the Canonical Ring"*.
- Colloquium, Northwestern University, Feb. 16, 2007
Title: *"On the Minimal Model Program"*.
- Gadget Seminar, U.T. Austin, Jan. 30, 2007
Title: *"On the Minimal Model Program"*.
- Algebraic Geometry Seminar, Johns Hopkins University, Jan. 24, 2007
Title: *"On the Minimal Model Program (part II)"*.
- Colloquium, Johns Hopkins University, Jan. 23, 2007
Title: *"On the Minimal Model Program"*.
- Colloquium, U.C. Santa Barbara, Jan. 22, 2007
Title: *"On the Minimal Model Program"*.
- Colloquium, University of Western Ontario, Jan. 19, 2007
Title: *"On the Minimal Model Program"*.
- Colloquium, Vanderbilt University, Jan. 16, 2007
Title: *"On the Minimal Model Program"*.
- Colloquium, Cambridge University, Jan. 10, 2007
Title: *"On the Minimal Model Program"*.
- Algebraic Geometry Seminar, Università di Firenze, Dec. 20, 2006
Title: *"On the Minimal Model Program"*.
- Western Algebraic Geometry Seminar, Salt Lake City, Nov. 11, 2006
Title: *"Minimal Model Program for Varieties of General Type"*.
- Recent trends in higher dimensional geometry, BIRS, Banff, April 2, 2006
Title: *"Kähler-Ricci Flow and the Minimal Model Program on a Projective Variety"*.
- Algebraic Geometry Seminar, University of Michigan, Feb. 22, 2006
Title: *"Kähler-Ricci Flow and the Minimal Model Program on a Projective Variety"*.
- Colloquium, University of Alberta, Mar. 24, 2005
Title: *"Kähler-Ricci Flow and the Minimal Model Program on a Projective Variety"*.
- Algebra, Geometry and Physics Seminar at Stony Brook, April 14, 2004
Title: *"On the Subsheaves of the Cotangent Bundle"*.
- Giornate di Geometria Algebrica ed Argomenti Correlati VI, Anacapri, May 31, 2002
Title: *"On the Subsheaves of the Cotangent Bundle and its Exterior Powers"*.
- Geometrie Algebrique en Liberte", Luminy, March 29, 2000
Title: *"On the Moduli Space of Rational Normal Curves"*.

- Geometric Properties of Real and Complex Varieties, Palermo, Aug. 30, 1999
Title: *"Weighted Tango Bundles"*.

Seminar Talks

- Graduate Colloquium, Oct. 11, 2007
Title: *"On the Minimal Model Program"*.
- Geometry, Topology, and Physics Seminar, May 25, 2007
Title: *"On the Kähler-Ricci Flow"*.
- Seminar of Geometry and Arithmetic, Feb. 24, 2006
Title: *"Kähler-Ricci Flow and the Minimal Model Program for Projective Varieties"*.
- Talks on Derived Categories, Jan. 27, 2006
Title: *"Log Crepant Birational Maps and Derived Categories"*.
- Talks on Derived Categories, Oct. 7, 2005
Title: *"An introduction to Fourier-Mukai Transforms"*.
- Seminar of Differential Geometry, Apr. 1, 2005
Title: *"Kähler-Ricci Flow and the Minimal Model Program on a Projective Variety"*.
- Seminar of Geometry and Arithmetic, Nov. 29, 2004
Title: *"3-fold flips after Shokurov, II"*.
- Seminar of Geometry and Arithmetic, Nov. 25, 2004
Title: *"3-fold flips after Shokurov, I"*.
- Seminar of Geometry and Arithmetic, Oct. 14, 2004
Title: *"Singularities in the Minimal Model Program"*.
- Seminar of Geometry and Arithmetic, Sep. 23, 2004
Title: *"On the Stability of the Cotangent Bundle of a Projective Variety"*.

Teaching Experience

- **University of California, Santa Barbara**
Winter 2008 - Lectured an undergraduate class in Calculus I.
Fall 2007 - Lectured an undergraduate class in Topology.
Spring 2007 - Lectured an undergraduate class in Calculus II.
Winter 2007 - Lectured two undergraduate classes in Calculus I & II.
Fall 2006 - Lectured an undergraduate class in Vector Calculus II.
Spring 2006 - Lectured an undergraduate class in Vector Calculus I.
Winter 2006 - Lectured two undergraduate classes in Calculus I and ODE.

Fall 2005 - Lectured an undergraduate class in Calculus I.

Spring 2005 - Lectured an undergraduate class in Calculus II.

Winter 2005 - Lectured an undergraduate class in Calculus I.

Fall 2004 - Lectured two undergraduate classes in Calculus I & II.

- **New York University**

Spring 2004 - Taught a graduate recitation class in PDE.

Fall 2003 - Lectured an undergraduate class in Calculus I.

Summer 2003 - Lectured an undergraduate class in Linear Algebra.

Spring 2003 - Taught a graduate recitation class in PDE.

Fall 2002 - Taught a recitation section in Algebra.

Fall 2001 - Taught a recitation section in Business Calculus.

Spring 2001 - Taught recitation section in Vector Analysis.