

Sean Timothy Paul

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RESEARCH INTERESTS Complex Differential Geometry
Complex Projective Geometry
Geometric Analysis

EDUCATION **Princeton University**, Princeton New Jersey USA
Phd. Princeton University May 2000

- Dissertation Topic: “Geometric Analysis of Chow Mumford Stability”
- Advisors: Gang Tian (M.I.T. and Princeton University)
Peter Sarnak (Princeton University)

HONORS AND AWARDS National Science Foundation Graduate Research Fellowship, 1996-1999

National Science Foundation Postdoctoral Fellowship, 2001-2004

National Science Foundation Division of Mathematical Sciences Grant 0505059, 2005-2008
Assistant Professor University of Wisconsin Madison (2006-)
Ritt Instructor - NSF Postdoctoral Fellow Columbia University (2000-2006)
Visiting Professor M.I.T. (Fall 2001)

PUBLICATIONS AND PREPRINTS S.Paul, *Geometric Analysis of Chow Mumford Stability*
Advances in Mathematics **182** Issue 2,333-356 (2004)

S.Paul, G.Tian, *Analysis of Geometric Stability*
IMRN no. **48**, 2555-2591 (2004)

S.Paul, G.Tian *CM Stability and the Generalized Futaki Invariant II*
Asterisque Nov. 2008

S.Paul *On a result of Gelfand, Kapranov, and Zelevinsky*
Advances in Mathematics Issue 221 1345-1363 (2009)

S.Paul *Hyperdiscriminant polytopes, Chow Polytopes, and Mabuchi Energy Asymptotics*
arxiv: **0811.2548** (submitted March 2008 53 pgs.)

S.Paul *Higher energies in Kähler Geometry I*
arxiv: **0707.2621** (2007)

S.Paul, Gang Tian *CM Stability and the Generalized Futaki Invariant I*
arxiv: **0605278** (2008)

S.Paul *Projective duality and K-energy Asymptotics*
arxiv: **0811.2544** (2008)

S.Paul, Gang Tian *Algebraic and Analytic K-Stability*
arxiv: **0405530** (2004)

INVITED TALKS

Institute Fourier, Grenoble, France (minicourse on hyperdiscriminants and K-Energy maps) Nov. 23-Dec. 03 2009

Northwestern Conference in honor of Simon Donaldson October 2009

Oberwolfach “Complex Algebraic Geometry” workshop, Wolfach, Germany September 2009

Pacific Rim Complex Geometry Conference, Chengdu China , Summer 2009

China/France meeting in Geometric Analysis, Beijing China, Summer 2009

University of Texas, Austin, May 2009

Cornell University Colloquium, April 2009

Cornell University Analysis seminar, April 2009

Massachusetts Institute of Technology Symplectic Geometry Seminar, March 2009

Princeton University Geometric Analysis Seminar, February 2009

Johns Hopkins Geometry Seminar, Sept. 2008

Centro di Ricerca Matematica Ennio De Giorgi. Pisa, Italy, March 2008

Hefei, China Conference in Complex Geometry USTC, Summer 2007

Univ. of Washington, Seattle, Fall 2006

Emory University Southeastern Geometry Conference, December 2006

L'ecole Polytechnique, Paris, Winter 2005

Sugadaria symposium, Sugadaria Japan, Fall 2005

University of Duisburg Essen, Oberseminar, Summer 2005

Max Planck Institute for Mathematics in the Sciences, Leipzig Germany, Summer 2005

Complex algebraic Geometry in Oberwolfach, Oberwolfach Germany, February 2005

Differential Geometry in Tokyo 2004, Tokyo, Japan Dec. 13 2004

CUNY graduate center, NY. NY., Nov. 5, 2004

Johns Hopkins Algebraic geometry Seminar, Balt. Md., Sept. 21 2004

Wichita State University, Departmental Colloquim, Wich. Kansas, Sep. 8 2004

Tata Institute for Fundamental research, Mumbai, India July 2004

Institute of Mathematics, Orissa India, June 5- July 18 2004

MSRI Special year in Differential geometry, Berkeley Ca., January 2003

University of Toronto, symplectic geometry, Toronto Canada, November 2003

Institute for Advanced Study/ Princeton Complex geometry seminar, Princeton N.J.

University of Texas, geometry seminar, Austin Texas, April 2003

University Of Michauca geometry seminar , Morelia Mexico July 2003

University Of Parma differential geometry seminar, Parma, Italy Nov. 2002

Instituto Superior Tecnico geometry seminar, Lisbon Portugal, Dec. 2002

Beijing University, departmental Colloquim, Beijing China, July 2002

TEACHING
EXPERIENCE

Calculus in one and several variables
Ordinary differential equations
Partial differential equations
Fourier Analysis
Convex optimization
Complex Algebraic Geometry
Elementary Differential Geometry of Curves and Surfaces