

CURRICULUM VITÆ - Emanuele Macrì

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Academic Education

September 2006 Ph.D. in Mathematics at
Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste
Thesis title: *Stability conditions on derived categories*
Supervisor: Prof. U. Bruzzo

September 2002 Master Degree in Mathematics (“Laurea in Matematica”) at
Università degli Studi di Genova
Thesis title: *Algebraic Integrable Systems on Algebraic Surfaces*
Supervisor: Prof. C. Bartocci
Final mark: 110/110 *with honour*

Positions Held

July 2008 - present	Wylie Assistant Professor at University of Utah, Salt Lake City
September 2007 - August 2008	Post-doctoral position at Hausdorff Center for Mathematics, Bonn
September 2006 - August 2007	Post-doctoral position at Max-Planck-Institute für Mathematik, Bonn
September 2002 - August 2006	Ph.D. student at Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste

Visiting Positions

- May 2009 - July 2009 Visiting position at
Universität Bonn
Supervisor: Prof. D. Huybrechts
- May 2008 Visiting position at
Departamento de Matemáticas, Universidad de Salamanca
- February 2007 - April 2007 Visiting position at
Institut des Hautes Études Scientifiques (IHES), Bures-sur-Yvette
- March 2006 - April 2006 Visiting student at
University of Pennsylvania, Philadelphia
Supervisor: Prof. T. Pantev
- April 2005 - July 2005 Visiting student at
University of Pennsylvania, Philadelphia
Supervisor: Prof. T. Pantev

Fellowships and Awards

- September 2007 - August 2009 JSPS Post-doctoral fellowship
University of Tokyo
Supervisor: Prof. Y. Kawamata
(declined)

Teaching

- Spring 2010 Accelerated Engineering Calculus II
University of Utah, Salt Lake City
- Fall 2009 PDEs for Engineers
University of Utah, Salt Lake City
- Spring 2009 Calculus III (Multivariable Calculus)
University of Utah, Salt Lake City
- Fall 2008 Calculus III (Multivariable Calculus)
University of Utah, Salt Lake City
- 2005 - 2006 Course “Geometria Differenziale 1” (Differential Geometry), with Prof. U. Bruzzo
Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste
- 2004 - 2005 Teaching Assistant for “Geometria Differenziale 1” (Differential Geometry)
Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste
- 2004 - 2005 Tutor for “Algebra 1”
Università degli Studi di Trieste

Publications and Preprints

- (1) *The space of stability conditions on the local \mathbb{P}^2* (with A. Bayer), preprint 2009.
- (2) *Fano varieties of cubic fourfolds containing a plane* (with P. Stellari), preprint 2009. Also arXiv:0909.2725.
- (3) *A categorical invariant for cubic threefolds* (with M. Bernardara, S. Mehrotra and P. Stellari), preprint 2009. Also arXiv:0903.4414.
- (4) *Stability conditions for derived categories*, appendix to the book “Fourier-Mukai and Nahm transforms in geometry and mathematical physics”, by C. Bartocci, U. Bruzzo, and D. Hernández-Ruipérez, Birkhäuser, 2009.
- (5) *Infinitesimal Derived Torelli Theorem for K3 surfaces* (with P. Stellari, appendix by S. Mehrotra), Int. Math. Res. Not. (2009), Article ID rnp049, 31 pp. Also arXiv:0804.2552.
- (6) *The module structure of Hochschild homology in some examples* (with M. Nieper-Wißkirchen and P. Stellari), C. R. Math. Acad. Sci. Paris 346, No.15-16 (2008), 863–866.
- (7) *Derived equivalences of K3 surfaces and orientation* (with D. Huybrechts and P. Stellari), Duke Math. J. 149 (2009), 461-507. Also arXiv:0710.1645.
- (8) *Formal deformations and their categorical general fibre* (with D. Huybrechts and P. Stellari), preprint 2007. To appear in: Comment. Math. Helv. Also arXiv:0809.3201.
- (9) *Inducing stability conditions* (with S. Mehrotra and P. Stellari), J. Alg. Geom. 18 (2009), 605-649. Also arXiv:0705.3752.
- (10) *Automorphisms and autoequivalences of generic analytic K3 surfaces* (with P. Stellari), J. Geom. Phys. 58, No.1 (2008), 133–164. Also math.AG/0702848.
- (11) *Stability conditions for generic K3 categories* (with D. Huybrechts and P. Stellari), Compositio Math. 144, No.1 (2008), 134–162. Also math.AG/0608430.
- (12) *Stability conditions on curves*, Math. Res. Lett. 14, No. 4 (2007) 657–672. Also arXiv:0705.3794.
- (13) *Some examples of spaces of stability conditions on derived categories*, preprint 2004. Also math.AG/0411613.
- (14) *Classification of Poisson surfaces* (with C. Bartocci), Comm. Cont. Math. 7, No. 1 (2005) 89–95. Also math.AG/0402338.

Languages

Italian, English, and a basic knowledge of French and German.

Professional Activities

Referee for *Compositio Math.*, *Internat. Math. Res. Notices*, *J. Geom. Phys.*, *JEMS*, *Math. Res. Lett.*

Reviewer for *Mathematical Reviews*

Synergistic Activities

- Organizer of the Baby Algebraic Geometry Seminar at the University of Utah (present, with T. de Fernex). Topic: *Positivity in Algebraic Geometry*. Audience: Graduate students.
- Organizer of the Algebraic Geometry Seminar at the University of Utah (since Fall 2008).
- Organizer and co-lecturer for the Reading-Seminar in Algebraic Geometry at the University of Bonn. Topics:
 - Fall 2007: *Mixed Hodge Structures*
 - Spring 2008: *Rational Curves on Fano Varieties* (co-organizer with D. Huybrechts)
 - Spring 2008: *Langlands Correspondence for Loop Group* (co-organizer with T. Matsumura and I. Shapiro)
 Audience: Graduate students and faculty. Goal: to discuss and learn, throughout a series of lectures, a topic of broad interest.
- Organizer of the Algebraic Geometry Seminar (SAG) at Max Planck Institute for Mathematics, Bonn (Fall 2007, with M. Möller).
- A series of 3 lectures on *Bridgeland's stability conditions on K3 surfaces* at the First CTS school and conference on vector bundles, TIFR, Mumbai, March 2008. Audience: Graduate students and faculty.

Invited Seminars

March 2010	University of Connecticut
December 2009	Universität Regensburg
December 2009	Colorado State University, Fort Collins
November 2009	University of Wisconsin, Madison
October 2009	University of Arizona, Tucson
April 2008	University of Arizona, Tucson
March 2008	University of Utah, Salt Lake City
February 2008	MPIM, Bonn
November 2007	Osaka University
September 2007	University of Illinois, Chicago
September 2007	University of Pennsylvania
July 2007	SISSA, Trieste
November 2006	Université de Nice - Sophia Antipolis
October 2006	MPIM, Bonn
May 2006	Università di Milano
March 2006	SISSA, Trieste
February 2006	Universidad de Salamanca
December 2005	Università di Genova
October 2005	University of Massachusetts, Amherst
December 2004	Università di Genova
May 2003	SISSA, Trieste

Invited Talks at Conferences

October 2009	WAGS, UCLA
August 2009	<i>BPS state counting, stability structures and derived algebraic geometry</i> , Universität Hamburg
June 2009	<i>Derived Categories and the Langlands Programme</i> , Freie Universität Berlin
May 2008	<i>Bundles, gerbes and derived categories in string theory</i> , Universidad de Salamanca
March 2008	<i>First CTS conference on vector bundles</i> , TIFR, Mumbai,
December 2007	<i>Categorical Aspects of Algebraic Geometry in Mirror Symmetry</i> , RIMS, Kyoto
April 2007	Mini-workshop: <i>Stability conditions, derived categories, etc.</i> , MPIM, Bonn
December 2006	Workshop: <i>Categorical Construction of Primitive Forms II</i> , RIMS, Kyoto
May 2006	<i>Giornate di Geometria Algebrica e Argomenti Correlati VIII</i> , Università di Trieste
April 2006	<i>KIAS School on Derived Categories of Coherent Sheaves</i> , KIAS, Seoul
November 2005	Mini-workshop: <i>Heterotic Strings, Derived Categories and Stacks</i> , MFO, Oberwolfach

Participation in Conferences and Workshops

June 2009	<i>International Workshop on Mirror Symmetry,</i> Universität Bonn
February 2009	<i>Modern Moduli Theory,</i> MSRI, Berkeley
July 2008	<i>Mirror Symmetry,</i> HIM, Bonn
July 2007	School: <i>Geometry of complex projective varieties,</i> Université de Grenoble I
August 2006	<i>ICM 2006 Satellite Conference in Algebraic Geometry,</i> Universidad de Valladolid, Segovia
March 2006	<i>Generalized McKay Correspondences and Representation Theory,</i> MSRI, Berkeley
October 2005	Workshop: <i>Moduli Spaces and Superpotentials,</i> University of Pennsylvania
July and August 2005	<i>Graduate Students Warm-Up and</i> <i>2005 Summer Institute in Algebraic Geometry,</i> University of Washington, Seattle
September 2004	School: <i>Algebraic Geometry and Derived Categories,</i> Lukecin, Poland
April 2004	<i>GAEL XII,</i> CIRM, Luminy
July 2003	<i>Advanced School in Basic Algebraic Geometry,</i> ICTP, Trieste
June 2003	School: <i>Fourier-Mukai functors and Nahm transform</i> and Workshop: <i>Geometric Integral Transforms and Applications,</i> Universidad de Salamanca
June 2002	Workshop: <i>K-theory, Derived Categories and Strings,</i> Università di Genova

References

Prof. Ugo Bruzzo (SISSA)	Email: <code>bruzzo@sisssa.it</code>
Prof. Daniel Huybrechts (Universität Bonn)	Email: <code>huybrech@math.uni-bonn.de</code>
Prof. Aaron Bertram (University of Utah)	Email: <code>bertram@math.utah.edu</code>
Prof. Henryk Hecht (University of Utah, Teaching)	Email: <code>hecht@math.utah.edu</code>