



Contacts

Dipartimento di Matematica "F. Enriques"
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Personal information

Date of birth: July 16, 1975
Place of birth: Lecco, Italy

Nationality: Italian
Status: married to Anna Betti; one daughter (Giulia)

Employments

Current	Professor (Professore Ordinario, Settore concorsuale 01/A2-Algebra e Geometria, Settore MAT/03-Geometria) at the Department of Mathematics of the Università degli Studi di Milano.
March 2015-January 2017	Associate Professor at the Department of Mathematics of the Università degli Studi di Milano.
September 2007-February 2015	Assistant Professor with tenure ("Ricercatore confermato") at the Department of Mathematics of the Università degli Studi di Milano.
November 2006-August 2007	Post-doc position ("Assegno di Ricerca") at the Department of Mathematics of the Università degli Studi di Milano.

Education

October 2006	Ph.D. in Mathematics at the Department of Mathematics of the Università degli Studi di Milano. Thesis title: <i>A Twisted Derived Torelli Theorem for K3 surfaces</i> . Advisor: Prof. Bert van Geemen. Final defense: March 5, 2007.
July 17, 2002	Master Degree in Mathematics at the Università degli Studi di Milano. Thesis title: <i>Fourier-Mukai partners of K3 surfaces</i> . Advisor: Prof. Bert van Geemen. Final mark: summa cum laude.

July 2, 1998

Master Degree in Philosophy at the Università degli Studi di Milano.
Thesis title: *Semantic and syntactic aspects of fuzzy logic*.
Advisor: Prof. Corrado Mangione.
Final mark: summa cum laude.

Research interests

Algebraic geometry and homological algebra. In particular:

- Derived categories of coherent sheaves and twisted sheaves.
- Dg categories.
- Stability conditions on derived and triangulated categories.
- Fourier-Mukai functors.
- Varieties with trivial canonical bundle and cubic hypersurfaces.

Publications

Papers and preprints

1. A. Bayer, M. Lahoz, E. Macrì, P. Stellari, *Stability conditions on Kuznetsov components*, (Appendix joint also with X. Zhao), arXiv:1703.10839.
2. M. Lahoz, M. Lehn, E. Macrì, P. Stellari, *Generalized twisted cubics on a cubic fourfold as a moduli space of stable objects*, to appear in: J. Math. Pures Appl., arXiv:1609.04573.
3. A. Canonaco, P. Stellari, *Uniqueness of dg enhancements for the derived category of a Grothendieck category*, to appear in: J. Eur. Math. Soc., arXiv:1507.05509.
4. A. Canonaco, P. Stellari, *A tour about existence and uniqueness of dg enhancements and lifts*, J. Geom. Phys. **122** (2017), 28-52.
5. M. Lahoz, E. Macrì, P. Stellari, *Arithmetically Cohen-Macaulay bundles on cubic fourfolds containing a plane*, In: *Brauer groups and obstruction problems: Moduli spaces and arithmetic*, 155-175, Progr. Math. **320**, Birkhäuser/Springer (2017).
6. A. Bayer, E. Macrì, P. Stellari, *The space of stability conditions on abelian threefolds, and on some Calabi-Yau threefolds*, Invent. Math. **206** (2016), 869-933.
7. A. Canonaco, P. Stellari, *Internal Homs via extensions of dg functors*, Adv. Math. **277** (2015), 100-123.
8. M. Lahoz, E. Macrì, P. Stellari, *Arithmetically Cohen-Macaulay bundles on cubic threefolds*, Algebr. Geom. **2** (2015), 231-269.
9. A. Canonaco, P. Stellari, *Fourier-Mukai functors in the supported case*, Compositio Math. **150** (2014), 1349-1383.
10. A. Canonaco, P. Stellari, *Fourier-Mukai functors: a survey*, In: *Derived Categories in Algebraic Geometry (Tokyo, 2011)*, EMS Ser. Congr. Rep., Eur. Math. Soc. (2013), 27-60.

11. A. Canonaco, D. Orlov, P. Stellari, *Does full imply faithful?*, J. Noncommut. Geom. **7** (2013), 357-371.
12. A. Canonaco, P. Stellari, *Non-uniqueness of Fourier-Mukai kernels*, Math. Z. **272** (2012), 577-588.
13. E. Macrì, P. Stellari, *Fano varieties of cubic fourfolds containing a plane*, Math. Ann. **354** (2012), 1147-1176.
14. M. Bernardara, E. Macrì, S. Mehrotra, P. Stellari, *A categorical invariant for cubic threefolds*, Adv. Math. **229** (2012), 770-803.
15. D. Huybrechts, E. Macrì, P. Stellari, *Formal deformations and their categorical general fibre*, Comment. Math. Helv. **86** (2011), 41-71.
16. D. Huybrechts, E. Macrì, P. Stellari, *Derived equivalences of K3 surfaces and orientation*, Duke Math. J. **149** (2009), 461-507.
17. E. Macrì, P. Stellari, *Infinitesimal derived Torelli theorem for K3 surfaces*, (Appendix by S. Mehrotra), Int. Math. Res. Not. IMRN **2009**, 3190-3220.
18. E. Macrì, S. Mehrotra, P. Stellari, *Inducing stability conditions*, J. Algebraic Geom. **18** (2009), 605-649.
19. E. Macrì, M. Nieper-Wisskirchen, P. Stellari, *The module structure of Hochschild homology in some examples*, C. R. Acad. Sci. Paris, Ser. I **346** (2008), 863-866.
20. P. Stellari, *A finite group acting on the moduli space of K3 surfaces*, Trans. Amer. Math. Soc. **360** (2008), 6631-6642.
21. E. Macrì, P. Stellari, *Automorphisms and autoequivalences of generic analytic K3 surfaces*, J. Geom. Phys. **58** (2008), 133-164.
22. D. Huybrechts, E. Macrì, P. Stellari, *Stability conditions for generic K3 categories*, Compositio Math. **144** (2008), 134-162.
23. A. Canonaco, P. Stellari, *Twisted Fourier-Mukai functors*, Adv. Math. **212** (2007), 484-503.
24. P. Stellari, *Derived categories and Kummer varieties*, Math. Z. **256** (2007), 425-441.
25. D. Huybrechts, P. Stellari, *Proof of Căldăraru's conjecture. An appendix to a paper by K. Yoshioka*, In: *The 13th MSJ Inter. Research Inst. - Moduli Spaces and Arithmetic Geometry*, 31-42, Adv. Stud. Pure Math. **45**, Math. Soc. Japan, Tokyo (2006).
26. D. Huybrechts, P. Stellari, *Equivalences of twisted K3 surfaces*, Math. Ann. **332** (2005), 901-936.
27. P. Stellari, *Some remarks about the FM-partners of K3 surfaces with Picard numbers 1 and 2*, Geom. Dedicata **108** (2004), 1-13.
28. P. Stellari, *Singular cubic fourfolds containing a plane*, Le Matematiche Vol. LVIII (2003), 277-305.

Editorial activities

1. P. Hacking, R. Laza, D. Oprea, *Compactifying moduli spaces*, Editors: G. Bini, M. Lahoz, E. Macrì and P. Stellari, Advanced Courses in Mathematics - CRM Barcelona, Birkhäuser (2016).
2. V. Alexeev, *Moduli of weighted hyperplane arrangements*, Editors: G. Bini, M. Lahoz, E. Macrì and P. Stellari, Advanced Courses in Mathematics - CRM Barcelona, Birkhäuser (2015).

Visiting positions

- 2018** Department of Mathematics, Northeastern University, Boston, USA (May 2016).
- 2017** Institut Henri Poincaré, Paris, France (June 2017).
- 2016** Department of Mathematics, Northeastern University, Boston, USA (May 2016).
- 2015** Department of Mathematics, Northeastern University, Boston, USA (April 2015).
Professeur Invité at the Université de Paris 7, Paris, France (13 May-13 June 2015).
- 2014** Department of Mathematics, The Ohio State University, Columbus, USA (April 2014).
Mathematisches Institut, Universität Bonn, Germany (June 2014).
- 2013** Department of Mathematics, The Ohio State University, Columbus, USA (April 2013).
The Erwin Schrödinger International Institute for Mathematical Physics, Vienna, Austria (June 2013).
- 2011** Mathematisches Institut, Universität Bonn, Germany (May 2011).
- 2010** Department of Mathematics, University of Utah, USA (April 2010).
Professeur Invité at the Institut Henri Poincaré, Paris, France (May 2010, Special Trimester on Complex Algebraic Geometry).
- 2009** Department of Mathematics, University of Utah, USA (March 2009).
Mathematisches Institut, Universität Bonn, Germany (May 15-July 15 2009).
- 2008** Hausdorff Center for Mathematics, Bonn, Germany (January-February 2008).
Mathematisches Institut, Universität Bonn, Germany (July 2008).
- 2007** Max-Planck-Institut für Mathematik (Bonn) (April 2007-June 2007).
Hausdorff Center for Mathematics, Bonn, Germany (November 2007).
- 2006** Max-Planck-Institut für Mathematik (Bonn) (December 2005-February 2006).
Academic Visitor at the Institute for Mathematical Sciences. Imperial College, London, UK (October 2006-December 2006).

- 2005** Institut de Mathématiques, University of Paris VI (Jussieu), France (November 2005-February 2005).
- 2004** Department of Mathematics, University of Edinburgh, UK (November 2003-January 2004).
Institut de Mathématiques, University of Paris VI (Jussieu), France (February 2004-May 2004).

Fellowships, grants and awards

Grants and research projects:

- Principal investigator of the ERC Consolidator Grant (ERC-2017-CoG-771507, StabCondEn) "Stability Conditions, Moduli Spaces and Enhancements" (February 2018-January 2023).
- Member of the research project FIRB 2012 "Moduli Spaces and Their Applications".
- *Member of the research project "Geometria delle Varietà Proiettive" (PRIN 2010-11 and 2015).*

Awards:

- Italian habilitation as Full and Associate Professor (December 24, 2013).
- French Qualification as University Professor (2013).
- Special mention for the *Enriques Prize 2009*.

Fellowships:

- Mathematische Institut of the Universität Bonn (July 2008, May 15-July 15 2009).
- Stipend of the Max-Planck-Institut für Mathematik (December 2005-February 2006, April 2007-June 2007).
- Fellowship for young researchers travelling abroad of the Istituto Nazionale di Alta Matematica (October 2006-December 2006).
- EDGE pre-doc grant (November 2003-January 2004).
- EAGER pre-doc grant (November 2002).

Conferences and seminars (co)organized

- Mini-workshop of Algebraic Geometry, May 10-11, 2018, Dipartimento di Matematica "F. Enriques", Milano (Italy) (in collaboration with L. Pertusi).
- School on Birational Geometry of Hypersurfaces, March 19-23, 2018; Palazzo Feltrinelli, Gargnano sul Garda (Italy) (in collaboration with A. Hochenegger and Manfred Lehn).
- Summer School – *Derived Algebraic Geometry*, September 14-18, 2015; Collegio Cairoli, Pavia, Italy (in collaboration with Alberto Canonaco).
- Algebraic Geometry Section - *Classical and Modern Algebraic Geometry*, First Joint International Meeting RSME-SCM-SEMA-SIMAI-UMI. July 2-4, 2014 at Bilbao (in collaboration with L. Costa, A. Lopez and R. Munoz).

- Summer School – *Derived Categories*. June 23-27, 2014; Laboratoire de Mathématiques Jean Leray, Nantes, France (in collaboration with Marcello Bernardara and Michele Bolognesi).
- Advanced Course – *Compactifying Moduli Spaces*. May 27-31, 2013; CRM Barcelona, Spain (in collaboration with Gilberto Bini, Emanuele Macrì and Marti' Lahoz).
- Spring School - *Holomorphic Symplectic Manifolds and Derived Categories*. March 25-30, 2008; Palazzo Feltrinelli - Gargnano del Garda, Italy (in collaboration with Bert van Geemen).
- Workshop of Algebraic Geometry – *Seminario di Natale*. Dipartimento di Matematica "F. Enriques" - Milano, Italy. Editions organized: 2006-2015.

Selected recent invited talks

- 2018** AMS Sectional Meeting - Section "Geometry of Moduli Spaces", Northeastern University, Boston, USA.
- Center for Geometry and Physics, Institute for Basic Science, Pohang, South Korea.
- Conference "Korean-Italian Meeting on Algebraic Geometry 2018", KIAS Seoul, South Korea.
- 2017** School "*Derived techniques in classical algebraic geometry*", Santiago de Chile.
- Dipartimento di Matematica, Università degli Studi di Roma Tor Vergata, Italy.
- Conference "*Algebraic and Arithmetic Conferenze 2017*", USTC Hefei, China.
- Dipartimento di Matematica, Politecnico di Milano, Italy.
- Fakultät für Mathematik, Technische Universität Chemnitz, Germany.
- 2016** Workshop "*Cubic fourfolds, hyper-Kähler varieties and algebraic cycles*", Lyon, France.
- Conference "*Non-commutative, Derived and Homotopical Methods in Geometry*", University of Antwerp, Belgium.
- Conference "*Moduli Spaces, Mirror Symmetry and Enumerative Geometry*", ICTP, Trieste, Italy.
- Workshop "*New methods in birational geometry*", Université P. Sabatier, Toulouse, France.
- Summer School "*Stability conditions on triangulated categories and geometric applications*", Sophus Lie Conference Center, Nordfjordeid, Norway.
- Dipartimento di Matematica, Università degli Studi di Verona, Italy.
- Department of Mathematics, University of Bielefeld, Germany.
- Hausdorff School "*Derived Categories: Dimensions, Stability Conditions, and Enhancements*", Bonn, Germany.
- Spring School "*Irregular Hodge Structures and Stability Conditions*", University of Mainz, Germany.
- Dipartimento di Matematica, La Sapienza-Università di Roma, Italy.

Department of Mathematics, Université de Lille 1, France.

2015 Workshop - "*Moduli Spaces and Derived Categories*", University of Stavanger, Norway.

Summer School "*Moduli Spaces and Derived Categories*", Palazzone di Cortona, Italy.

AMS Summer Institute in Algebraic Geometry 2015, Salt Lake City, USA (invited speaker).

Department of Mathematics, University of Hamburg, Germany.

Summer School - "*Rationality problems in Algebraic Geometry*", CIME Courses, Levico Terme, Italy.

Conference - "*VBAC2015: Fourier-Mukai, 34 years on*", University of Warwick, UK.

Institut de Mathématiques, Université de Paris 7, France.

Workshop - "*Spring 2015 BC-Northeastern Algebraic Geometry Conference*", Northeastern University, Boston, USA.

Department of Mathematics, Boston College, USA.

Workshop - "*New techniques in birational geometry*", Simons Center, Stony Brook, USA.

Simons Symposium on Geometry over Nonclosed Fields, Puerto Rico.

Workshop - "*Geometry from Stability Conditions*", University of Warwick, UK.

Department of Mathematics, Imperial College, London, UK.

2014 Department of Mathematics, Università degli Studi di Roma 3, Italy.

Workshop - "*New developments in algebraic geometry*", National Taiwan University, Taiwan.

Department of Mathematics, The Ohio State University, Columbus, USA.

Workshop - "*Brill-Noether methods in the study of hyper-Kähler and Calabi-Yau manifolds*", Hausdorff Research Institute for Mathematics, Bonn, Germany.

The School of Mathematics, University of Edinburgh, UK (two talks).

Workshop - "*Derived Categories*", Hausdorff Research Institute for Mathematics, Bonn, Germany.

Dipartimento di Matematica, Università degli Studi di Torino, Italy.

2013 Workshop - "*Algebraic Analysis and Geometry 2013*", Padova, Italy.

Institut Fourier, Université de Grenoble, France.

Workshop - "*Higher categories and Topological Quantum Field Theory*", Erwin Schrödinger Institute, Vienna, Austria.

Department of Mathematics, The Ohio State University, Columbus, USA.

- Workshop - "*Brauer groups and obstruction problems: moduli spaces and arithmetic*", American Institute of Mathematics, Palo Alto, USA.
- Workshop - "*Curves and their Jacobians: state of the art*", CIRM, Levice Terme, Italy.
- 2012** Workshop - "*Algebraic Geometry, Modular Forms and applications to Physics*", ICMS, Edinburgh, UK.
- Department of Mathematics, ETH Zurich, Switzerland.
- Short Summer School - "*The derived category of cubic hypersurfaces*", Barcelona, Spain.
- Conference - "*CATS4 - Higher Categorical Structures and their Interactions with Algebraic Geometry, Algebraic Topology and Algebra*", CIRM, Luminy, France.
- Conference - "*GaeLXX+, Géométrie Algébrique en Liberté XX+*", Grenoble, France.
- Conference - "*Holomorphic Symplectic Manifolds and Moduli Spaces*", Grenoble, France.
- Workshop - "*Derived Categories in Algebraic Geometry*", Dijon, France.
- 2011** Workshop - "*Genova-Torino-Milano seminar: some topics in Commutative Algebra and Algebraic Geometry*", Università degli Studi di Milano, Italy.
- Conference - "*Espaces de modules et formes automorphes*", CIRM Luminy, France.
- Workshop - "*Algebraic surfaces and related topics*", University of Poitiers, France.
- Conference - "*XIX Congresso dell'Unione Matematica Italiana*", Bologna, Italy.
- Conference - "*Derived categories and algebraic geometry*", Steklov Institute RAS, Moscow, Russia.
- Conference - "*The legacy of deformation quantization*", Ascona, ETH Zurich, Switzerland.
- Mathematische Institut, Universität Bonn, Germany.
- Workshop - "*Classical Algebraic Geometry*", Istituto Nazionale di Alta Matematica, Roma Italy.
- Conference - "*Derived Categories 2011 Tokyo*", University of Tokyo, Japan.
- 2010** Dipartimento di Matematica, Università degli Studi di Pavia, Italy.
- Dipartimento di Matematica, Politecnico di Torino, Italy.
- Conference - "*Derived Categories, Holomorphic Symplectic Varieties, Birational Geometry, Deformation Theory*", Institut Henri Poincaré, Paris.
- Mini-course - "*K3 surfaces and derived categories*" (3 lectures), Institut Henri Poincaré, Paris, France.
- Departmental Colloquium, Department of Mathematics, University of Utah, USA.
- 2009** Dipartimento di Matematica, Università di Roma "La Sapienza", Italy.

Summer School - "BPS state counting, stability structures and derived algebraic geometry", Hamburg, Germany.

Algebraic Geometry Seminar, Universität Bonn/Max-Planck-Institute, Germany.

Department of Mathematics, University of Utah, USA.

Dipartimento di Matematica, Università degli Studi della Calabria, Italy.

2008 Mathematische Institut, Universität Bonn, Germany.

Laboratoire J.-A. Dieudonné, Université de Nice, France.

Workshop - "Bundles, Gerbes and Derived Categories in String Theory", Universidad de Salamanca, Spain.

Conference - "First CTS Conference on Bundles" (Two talks.), Tata Institute of Fundamental Research, Mumbai, India.

Dipartimento di Matematica Pura e Applicata, Università degli Studi di Padova, Italy.

Teaching

- Calculus for Natural Sciences, Biotechnology and Pharmacy. Academic years: from 2008-2009, 2014-2015, 2015-2016 and 2016-2017 (first semester).
- Geometria 1 (Linear Algebra, part 1) – Exercise section. Academic years: 2008-2009, 2009-2010, 2012-2013, 2013-2014, 2014-2015, 2015-2016 and 2016-2017 (first semester).
- Geometria 2 (Linear Algebra, part 2) – Exercise section. Academic year: 2007-2008 (second semester).
- Geometria degli Schemi (Geometry of Schemes) – Lectures. Academic years: 2015-2016 and 2016-2017 (first semester).
- Mathematical methods for Computer Science – Complementary lectures. Academic year: 2007-2008 (first semester).
- Topologia Algebrica (Algebraic Topology) – Lectures (in English). Academic years: 2011-2012 and 2012-2013 (first semester).
- Varietà Complesse (Complex Varieties) – Exercise section (in English). Academic years: 2010-2011, 2011-2012 (first semester).

Other professional activities

Activity as a referee or reviewer:

- Referee for: *Advances in Mathematics*, *Algebraic Geometry*, *Annali della Scuola Normale Superiore*, *C. R. Math. Acad. Sci. Paris*, *Communications in Mathematical Physics*, *Compositio Mathematica*, *Duke Mathematical Journal*, *International Mathematical Research Notices*, *Inventiones Mathematicae*, *Journal of Algebraic Geometry*, *Journal of Geometry and Physics*, *Journal of the American Mathematical*

Society, Journal of the European Mathematical Society, Journal für die reine und angewandte Mathematik, Journal of the London Mathematical Society, Mathematical Research Letters, Mathematische Annalen, Mathematische Zeitschrift, Michigan Mathematical Journal, Nuovo Cimento, Publ. Math. IHES, Publications of the Research Institute for Mathematical Sciences, Quartely Journal of Mathematics, Rendiconti del Seminario Matematico di Padova, and Transactions of the American Mathematical Society.

- Reviewer for the Agence National de la Recherche (France), the Fonds de la Recherche Scientifique-FNRS (Belgium), the Marie Curie Grant (European Research Council), the National Security Agency (USA).
- Member of a Jury for the French Habilitation à Diriger des Recherches, Université de Rennes 1 in 2013.
- Member of 5 Ph.D. juries (Université de Nice - France in 2008, Università degli Studi di Roma "Tor Vergata" - Italy in 2011, Université de Grenoble - France in 2013, Università degli Studi di Pavia - Italy in 2015 and Sapienza Università di Roma - Italy 2018) and oral exam committee member (University of Utah, USA, 2010).

Postdocs, students and theses:

- 2 Postdoc (co-tutored) (Academic years 2010-2011 and 2014-2016).
- 5 Ph.D. Students: Francesco Amodeo (joint with A. Canonaco, completed in 2014), Martino Cantadore (joint with G. Vezzosi, completed in 2017), Riccardo Moschetti (joint with A. Canonaco, completed in 2014), Mattia Ornaghi (completed in 2018) and Laura Pertusi;
- 9 Master Degree Students (2011-2014);
- 10 Bachelor Degree Students (2010-2014).

Administrative duties:

- Member of the executive council of the Seminario Matematico e Fisico di Milano.

Languages

Italian: mother language.

English: fluent in both writing and speaking.

Spanish: fluent in both writing and speaking.

French: basic.