

Andrea FANELLI

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PERSONAL DETAILS

PLACE AND DATE OF BIRTH: Rome, Italy | 08 October 1987
NATIONALITY: Italian
WORK ADDRESS: Institut de Mathématiques de Bordeaux
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WORK EXPERIENCE

Current SEP 2019	Maître de Conférences (lecturer) <i>Université de Bordeaux</i> , France Équipe de Théorie des Nombres
SEP 2018 AUG 2019	FMJH postdoc <i>Université de Versailles Saint-Quentin-en-Yvelines</i> , France Funded by Fondation Mathématiques Jacques Hadamard Supervisor: Prof. Nicolas PERRIN
SEP 2016- AUG 2018	Wiss. Mitarbeiter (post-doc) <i>Heinrich-Heine-Universität Düsseldorf</i> , Germany Funded by DFG Project: "Gromov-Witten Theorie, Geometrie und Darstellungen" (PE 2165/1-2) Supervisors: Prof. Benjamin KLOPSCH, Prof. Nicolas PERRIN (UVSQ)
SEP 2015- AUG 2016	Wiss. Mitarbeiter (post-doc) <i>Universität Basel</i> , Switzerland Funded by SNF Project: "Algebraic subgroups of the Cremona groups" (200021_159921) Supervisor: Prof. Jérémy BLANC

EDUCATION

OCT 2011- AUG 2015	PhD in MATHEMATICS <i>Imperial College London</i> , United Kingdom Subject: Algebraic Geometry Thesis: "Two structural aspects in birational geometry: geography of Mori fibre spaces and Matsusaka's Theorem for surfaces in positive characteristic" Supervisor: Dr Paolo CASCINI
OCT 2009- JUL 2011	Master in MATHEMATICS <i>Sapienza Università di Roma</i> , Italy 110/110 summa cum laude Thesis: "Multiplier Ideal Sheaves: Nadel's Theorem and Applications" Supervisors: Prof Enrico ARBARELLO, Dr Simone DIVERIO (UPMC)
OCT 2006- JUL 2009	Bachelor in MATHEMATICS <i>Sapienza Università di Roma</i> , Italy 110/110 summa cum laude Thesis: "Riemann Surfaces and Uniformization Theorem" Supervisor: Prof Enrico ARBARELLO

RESEARCH

Algebraic geometry: birational classification, minimal model program, Fano varieties, surfaces in characteristic p , maximal algebraic subgroups of the Cremona group, rational simple connectedness.

Published papers:

- (with S. Schröer) *The maximal unipotent quotient, unusual torsion in Fano threefolds, and exceptional Enriques surfaces*, Épi-journal de Géométrie Algébrique (2020);
- (with S. Schröer) *Del Pezzo surfaces and Mori fibre spaces in positive characteristic*, Transaction of the AMS (2020);
- (with C. Casagrande and G. Codogni) *The blow-up of \mathbb{P}^4 at 8 points and its Fano model, via vector bundles on a degree 1 del Pezzo surface*, Revista Matemática Complutense (2019);
- (with G. Codogni, R. Svaldi et L. Tasin) *A note on the fibres of Mori fibre spaces*, European Journal of Mathematics (2018);
- (with G. Codogni, R. Svaldi et L. Tasin) *Fano varieties in Mori fibre spaces*, Int Math Res Notices (2016);
- (with G. Di Cerbo) *Effective Matsusaka's Theorem for surfaces in characteristic p* , Algebra and Number Theory (2015).

Submitted papers:

- (with J. Blanc et R. Terpereau) *Connected algebraic groups acting on 3-dimensional Mori fibrations*, arXiv:1912.1136 (2020);
- (with L. Gruson and N. Perrin) *Rational curves on V_5 and rational simple connectedness*, arXiv:1901.06930 (2019);
- (with J. Blanc et R. Terpereau) *Automorphisms of \mathbb{P}^1 -bundles over rational surfaces*, arXiv:1707.01462 (2017).

In preparation:

- (with L. Gruson and N. Perrin) *Twisting surfaces on V_5 and rational simple connectedness*.

REFEREES

PROF JÉRÉMY BLANC	jeremy.blanc@unibas.ch
PROF PAOLO CASCINI	p.cascini@imperial.ac.uk
PROF LAURENT GRUSON	laurent.gruson@uvsq.fr
PROF NICOLAS PERRIN	nicolas.perrin@uvsq.fr
PROF STEFAN SCHRÖER	schroeer@math.uni-duesseldorf.de

CONFERENCES, ORGANISED EVENTS AND COLLECTIVE DUTIES

SEP 2020 – *Séminaire Théorie des Nombres*, IMB, Bordeaux, France (with É. Balandraud and D. Chatzakos)

15-16/10/2019 *Rencontre Bordeaux-Poitiers de géométrie algébrique*, Bordeaux, France (with E. Floris)

19-20/12/2019 *Geometry in Pairs*, Roma Tre, Italy (with B. Bolognese and E. Di Nezza)

09-10/09/2019 *Rencontre PEPS*, Poitiers, France (with E. Floris)

22-26/07/2019 *Del Pezzo surfaces and Fano varieties*, HHU, Düsseldorf, Germany (with S. Schröer)

20-21/12/2018 *Aeneas Conference*, Roma Tre, Rome, Italy (with G. Codogni)

OCT 2016-JULY 2018 *Research Seminar*, HHU, Düsseldorf, Germany (with P. Arndt, D. Bradley-Williams, A. Garrido and K. Langlois)

18-19/12/2014 *Algebraic Geometry and Representation Theory in Rome*, Roma Tre, Rome, Italy (with G. Cerulli Irelli and G. Codogni)

3-4/04/2014 *Traumatic Workshop: Birational Geometry and Fano Varieties*, Imperial College London, United Kingdom (with M. Akhtar, P. Cascini, A. Corti, D. Martinelli and A. Petracci)

OCT 2012-MAY 2013 *Junior Geometry Seminar*, Imperial College London, United Kingdom

2-5/04/2013 *Characteristic p methods in Algebraic Geometry*, funded by LMS, Imperial College London, United Kingdom (with P. Cascini and J. Martinez Garcia)

- Reviewer for international journals;
- Reviewer for *Mathematical Reviews* and *Zentralblatt MATH*.

SCHOLARSHIPS, GRANTS AND AWARDS

FEB- DÉC 2019	Member of the PEPS project (Jeunes chercheuses et jeunes chercheurs) "Programme de Sarkisov et action de groupes" (Project leader : Enrica Floris, Poitiers)
APR-JUN 2015	IMPA's fellowship (Rio de Janeiro, Brasil) for the special trimester in Algebraic Geometry
MAR 2014	First prize (with Diletta Martinelli), Mathematics Department Poster Competition (Imperial College London, United Kingdom)
JUN 2013	Faculty of Natural Sciences Award for Excellence in Teaching (Imperial College London, United Kingdom)
OCT 2011- MAR 2015	Roth Scholarship (PhD scholarship, Imperial College London, United Kingdom)
SEP 2010- FEB 2011	Erasmus scholarship (ranked first in the Faculty of Mathematical, Physical and Natural Sciences, Sapienza Università di Roma) at UPMC, Paris 6
NOV 2007- JUN 2009	Percorso di Eccellenza (top 15 students)

TEACHING EXPERIENCE

SEP-DÉC 2020	Géométrie algébrique, Topologie, Bases de Mathématiques pour le Sciences, Course and exercise classes (Bordeaux)
JAN-MAY 2020	Algèbre linéaire exercise classes (Bordeaux)
SEP-DÉC 2019	Topologie, Bases de Mathématiques pour le Sciences, Course and exercise classes (Bordeaux)
SEP-DEC 2018	Mathématiques Générales, Course and exercise classes (UVSQ, Versailles)
MAR-JUN 2016	Kommutative Algebra, Exercise classes (Universität Basel, Switzerland)
SEP 2015- JAN 2016	Algebraic geometry via schemes, Exercise classes (Universität Basel, Switzerland)
JAN-MAY 2014	Complex Analysis, Exercise classes (Imperial College London, United Kingdom)
JAN-MAY 2013	Algebra 1 et Analysis 1, Exercise classes (Imperial College London, United Kingdom)
OCT-DEC 2012	Foundation of Analysis et Linear Algebra, Exercise classes (Imperial College London, United Kingdom)
OCT-DEC 2011	Foundation of Analysis et Algebra 2, Exercise classes (Imperial College London, United Kingdom)
OCT-DEC 2009	Project manager of "Playing in a dust-free atmosphere", a course in advanced mathematics for last-year students at Liceo "A. Avogadro" (Rome, Italy)

In charge of :

- bachelor's thesis;
- master's projects;
- master's thesis.

SELECTED TALKS AND ACADEMIC VISITS

- 14–18/06/2021 *Algebraic Geometry in Angers*, Angers, France (talk)
12/11/2019 *Journée de rentrée de l'IMB*, Bordeaux, France (short talk)
- 23–27/09/2019 *Rencontre Del Duca 2019*, Toulouse, France
20/09/2019 *Séminaire de Théorie de Nombres*, Bordeaux, France
05/09/2019 *Journée du LMV*, Versailles, France
18/06/2019 *Algebraic Geometry Seminar*, TUM, Munich, Germany
11/04/2019 *Séminaire de géométrie algébrique*, IMJ, Paris, France
- 03–05/04/2019 *Young Perspectives in Algebraic Geometry II*, Bayreuth, Germany
21/03/2019 *Seminar of Geometry*, Roma Tre, Italy
14/03/2019 *Séminaire de Géométrie Complexe*, Toulouse, France
21/02/2019 *Séminaire d'algèbre, topologie et géométrie*, Nice, France
21/02/2019 *Séminaire AGATA*, Montpellier, France
- 17–21/12/2018 *GAGC2018*, CIRM, France
27/11/2018 *Séminaire Géométrie Algébrique*, Lille, France
- 06–07/09/2018 *Rencontre La Rochelle-Bordeaux-Poitiers*, Poitiers, France (series of talks)
26/06/2018 *Colloquio matematico*, Bari, Italy (colloquium)
22/05/2018 *Seminar of Algebraic Geometry*, EPFL, Lausanne, Switzerland (talk)
11/04/2018 *Seminario di Geometria Algebrica e Teoria dei Numeri*, Padua, Italy (talk)
15/03/2018 *EDGE Seminar*, Edinburgh, UK (talk)
08/03/2018 *Séminaire Groupes, Algèbre et Géométrie*, Poitiers, France (talk)
12/02/2018 *Séminaire de géométrie complexe*, Nancy, France (talk)
25/01/2018 *Oberseminar Algebraische Geometrie*, Saarbrücken, Germany (talk)
10/01/2018 *7th Swiss-French Workshop in Algebraic Geometry*, Charmey, Switzerland (talk)
05/01/2018 *IAG Oberseminar*, Hannover, Germany (talk)
- 11–15/12/2017 *GAGC2017*, CIRM, France (short talk)
09/11/2017 *Séminaire de géométrie algébrique*, ENS, Paris, France (talk)
07/11/2017 *Algebra and Geometry Seminar*, Basel, Switzerland (talk)
16/03/2017 *Cambridge-Tokyo workshop*, Cambridge, United Kingdom (talk)
15/12/2016 *Seminar of Algebraic Geometry and Number Theory*, EPFL, Lausanne, Switzerland
- 13–17/06/2016 *GAeL XXIV*, Nesin Mathematics Village, Turkey (talk)
25–28/05/2016 *Giornate di Geometria Algebrica ed Argomenti Correlati XIII*, Catania, Italy (talk)
8–10/02/2016 *An introductory workshop on the Minimal Model Program*, Hannover, Germany (talk)
- 13–24/07/2015 *2015 Summer Research Institute on Algebraic Geometry*, Salt Lake City, USA (poster)
16/03/2015 *Warwick Algebraic Geometry Seminar*, Warwick, United Kingdom (talk)
24–28/11/2014 *GAGC2014*, CIRM, France (short talk)
23–28/07/2012 *Dacha Conference*, Russia (talk)

ACADEMIC VISITS

- 06-11/02/2019 HHU, Düsseldorf, Allemagne (invited by Stefan Schröer)
- 20-24/11/2017 UVSQ, Versailles, France (invited by Nicolas Perrin)
- 13-17/03/2017 Imperial College London, United Kingdom (invited by Eleonora Di Nezza)
- 28/11-2/12/2016 UVSQ, Versailles, France (invited by Nicolas Perrin)
- SEP-OCT 2016 FRIAS, Fribourg, Germany (invited by Stefan Kebekus)
- APR-JUN 2015 IMPA, Special semester in Algebraic Geometry, Rio de Janeiro, Brasil
- 25/03/2014 Columbia University, USA (invited by Gabriele Di Cerbo)