

Marta Pieropan

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Personal

Date of birth: 11 February 1988
 Nationality: Italian

Place of birth: Zevio (VR), Italy

Education

- 07/2010 **Laurea Triennale in Matematica**, *Università degli Studi di Padova*, Thesis: *Teoremi di Mordell e Lutz-Nagell. Relazioni con due classici problemi aritmetici.*, Advisor: Prof. M. Candilera, Grade: 110/110 e lode.
- 07/2012 **Master ALGANT**, *Concordia University - Université Paris-Sud 11 (double degree)*, Thesis: *On the unirationality of Del Pezzo surfaces over an arbitrary field.*, Advisor: Prof. C. Gasbarri, Grade: Bien.
- 06/2015 **PhD**, *Leibniz Universität Hannover*, Thesis: *Torsors and generalized Cox rings for Manin's conjecture*, Advisor: Prof. Dr. U. Derenthal, Grade: Sehr gut.

Scholarships

- 2007–2010 INDAM scholarship for undergraduate studies.
- 2010–2012 Erasmus Mundus scholarship for ALGANT master.

Employment

- 09/2012–03/2014 Wissenschaftliche Mitarbeiterin (research associate) at LMU Munich, Germany.
- 04/2014–08/2015 Wissenschaftliche Mitarbeiterin (research associate) at Leibniz Universität Hannover, Germany.
- 07/2013–08/2015 supported by grant DE 1646/3-1 of DFG Priority Project SPP 1489.
- 09/2015–08/2017 Wissenschaftliche Mitarbeiterin (post-doc) in the Arithmetic Geometry group of H. Esnault at Freie Universität Berlin, Germany.
- 09/2017–06/2020 Post-doc in the Algebraic Geometry group of Z. Patakfalvi at EPFL, Lausanne, Switzerland
- Since 07/2020 Assistant professor at Utrecht University, Netherlands

Research visits

- 2019 (1 month) Trimester program *Reinventing Rational Points*, 15 April – 12 July, 2019, at IHP, Paris, France

Publications

1. **O-minimality on twisted universal torsors and Manin's conjecture over number fields**, (*with C. Frei*), *Ann. Sci. Éc. Norm. Supér.* (4) 49, no. 4, pp. 757-811, 2016.

2. **Imaginary quadratic points on toric varieties via universal torsors**, Manuscripta Math. 150, no. 3, pp. 415-439, 2016.
3. **Cox rings over nonclosed fields**, (with U. Derenthal), J. Lond. Math. Soc. 99, no. 2, pp. 447-476, 2019.
4. **The split torsor method for Manin's conjecture**, (with U. Derenthal), Trans. Amer. Math. Soc., to appear. Preprint: arXiv:1907.09431.
5. **On Galois descent of complete intersections**, Math. Res. Lett., to appear. Preprint: arXiv:1905.00227.
6. **Campana points of bounded height on vector group compactifications**, (with A. Smeets, S. Tanimoto and A. Várilly-Alvarado), Proc. Lond. Math. Soc., to appear. Preprint: arXiv:1908.10263.

Conference Reports

7. **O-minimality and Manin's conjecture**, Oberwolfach Rep. 14, no. 2, pp. 1366-1368, 2017.

Preprints

8. **On rationally connected varieties over C_1 fields of characteristic 0**, arXiv:1905.02227, submitted.
9. **Hyperbola method on toric varieties**, (with D. Schindler), arXiv:2001.09815, submitted.

Teaching experience

- WS12/13 Exercise classes: Algebraische Geometrie 1 (in English), at LMU Munich.
 SS2013 Exercise classes: Algebraische Geometrie 2 (in English), at LMU Munich.
 WS13/14 Exercise classes: Algebraische Geometrie 1 (in English), at LMU Munich.
 WS14/15 Exercise classes: Algebra 1 (in German), at Leibniz Universität Hannover.
 WS16/17 Reading seminar organization: Berkovich spaces, birational geometry and motivic zeta functions, at FU Berlin.
 WS17/18 Bachelor course: Rings and Modules (in English), at EPFL.
 SS2018 Master/PhD seminar supervision: Sheaf Cohomology, at EPFL.
 WS18/19 Tutor coordination: Analysis I (English), at EPFL.
 WS19/20 Tutor coordination: Analysis I (English), at EPFL.

Students

- WS17/18 Filippo Candia, Bachelor semester project, at EPFL.
 WS18/19 Hector Pelletier, Master semester project, at EPFL.
 WS19/20 Grégoire Thomazeau, Master thesis, at EPFL.

Meetings organized

- 05/2018 Workshop *Birational Geometry and Arithmetic* at the Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence, USA. Coorganizers: A. Auel, S. Tanimoto, Y. Tschinkel, A. Várilly-Alvarado.

Invited talks

- 09/2020 DMV Jahrestagung 2020, Chemnitz, Germany (online).
09/2020 Modern Breakthroughs in Diophantine Problems, Banff, Canada (online).
10/2019 Workshop on Birational Geometry, HSE Moscow, Russia.
10/2019 Seminar of Geometry at Università Roma Tre, Rome, Italy.
09/2019 Topics in Rational and Integral Points, Basel, Switzerland.
07/2019 Rational points 2019, Schney, Germany.
05/2019 Seminari di Algebra e Geometria Algebrica at Università di Torino, Torino, Italy.
02/2019 Higher Dimensional Arithmetic Geometry, Kumamoto, Japan.
02/2019 Seminar at KIAS, Seoul, South Korea.
02/2019 Seminar at Ajou University, Suwon, South Korea.
01/2019 Number Theory Seminar, Grenoble, France.
11/2018 Algebraic Geometry and Number Theory Seminar, IST Austria.
11/2018 Constructions and obstructions in birational geometry, Edinburgh, UK.
10/2018 Basel–Dijon–EPFL Seminar, Dijon, France.
08/2018 Arithmetic and Geometry of cubic hypersurfaces, Hannover, Germany.
07/2018 Rational Points on Schiermonnikoog, Schiermonnikoog, Netherlands.
05/2018 Rational and Integral Points via Analytic and Geometric Methods, Oaxaca, Mexico.
03/2018 Number Theory Seminar, Utrecht, Netherlands.
03/2018 Number Theory Seminar, Basel, Switzerland.
10/2017 Seminar of Algebraic Geometry and Number Theory, Lausanne, Switzerland.
07/2017 Where Geometry meets Number Theory, Göteborg, Sweden.
06/2017 Workshop on O-minimality and Diophantine Applications, Toronto, Canada.
05/2017 Heilbronn Number Theory Seminar, Bristol, UK.
05/2017 O-Minimality and its Applications to Number Theory and Analysis, Oberwolfach, Germany.
03/2017 Geometry Seminar, Nijmegen, Netherlands.
02/2017 Seminar in Algebra, Geometry and Arithmetic, Poznań, Poland.
01/2017 NoGAGS, Hamburg, Germany.
01/2016 Torsors in Arithmetic and Algebraic Geometry, Nice, France.
01/2016 Workshop on Rationality Questions, Bristol, UK.
12/2015 Arithmetic Geometry Seminar, FU Berlin, Germany.
10/2015 Young Women in Algebraic Geometry, Bonn, Germany.
09/2015 5. Jahrestagung DFG-Schwerpunktprogramm 1489, Osnabrück, Germany.
07/2015 AMS Summer Institute in Algebraic Geometry, Salt Lake City, USA.
06/2015 Rational Points 2015, Schloss Schney, Germany.
05/2015 Séminaire “Variétés Rationnelles”, Paris, France.
02/2015 Intercity Number Theory Seminar, Leiden, Netherlands.
02/2015 2. Göttingen-Hannover Number Theory Workshop, Göttingen, Germany.
01/2015 Number Theory Seminar, University of Copenhagen, Denmark.
07/2014 ENFANT & ELEFANT, Workshop: Analytic Number Theory, Bonn, Germany.
07/2014 Oberseminar IAZD, Leibniz Universität Hannover, Germany.
03/2014 4. Jahrestagung DFG-Schwerpunktprogramm 1489, Bad Boll, Germany.
01/2014 CARP (Collaboration Around Rational Points), Bellairs Research Institute (McGill University), Barbados.

09/2013 Summer School in Algorithmic Mathematics, Hamburg, Germany.

02/2013 2nd Swiss-French Workshop in Algebraic Geometry, Enney, Switzerland.

Referee service

Acta Arithmetica, Bulletin des Sciences Mathématiques, International Journal of Number Theory, International Mathematics Research Notices, Proceedings of the London Mathematical Society, Transactions of the American Mathematical Society

Languages

Italian: mother tongue.

English: fluent.

French: conversational.

German: conversational.