

CURRICULUM VITAE

of **Pietro Corvaja**, born on July 19th 1967 in Padua (Italy).

Education and Position

- 1985 Enters the Faculty of Sciences of Pisa University, as a student of *Scuola Normale Superiore*
- 1989 *Laurea* (Master degree) in Mathematics at Pisa University.
- 89-90 Graduate student at Istituto Nazionale di Alta Matematica in Rome.
- 90-91 D.E.A. (Diplôme d'études approfondies) in Mathematics at University P. et M. Curie (Paris VI).
- 91-95 PhD Student at Paris VI University. Thesis defence on September 28th 1995. Title of the thesis: *Approximation diophantienne sur la droite*; advisors: professors Michel Waldschmidt and Michel Laurent.
- 1995 Assistant at I.U.A.V., Venice.
- 1995 Ricercatore (tenure position) at the Faculty of Sciences of Udine University.
- 97-98 Member of the *Institute for Advanced Study* in Princeton (U.S.A.).
- 2001 *Habilitation à diriger des recherches*, obtained at Université P. et M. Curie, Paris VI.
- 2002 Associate Professor at the Faculty of Sciences of Udine University.
- 2005 Full Professor in Geometry at the Faculty of Sciences of Udine University; presently at Department of Mathematics, Computer Science and Physics.
- 2021- Dean of the Department of Mathematics, Computer Science and Physics of the University of Udine.

Research activity.

Main research interests: Diophantine Geometry (especially integral points on algebraic varieties), Transcendental Number Theory, Algebraic Geometry (abelian varieties and schemes, deformation theory), Nevanlinna Theory, Diophantine Approximation.

Principal Investigator of the Italian PRIN (Progetto di Ricerca di Interesse Nazionale) *Geometric, algebraic and analytic aspects of arithmetic*, 2019-2023.

Among scientific collaborators: U. Zannier (Scuola Normale Superiore di Pisa), Y. Bugeaud (Strasbourg), Z. Rudnik (Tel Aviv), J. Noguchi (Tokyo), D. Masser (Basel), Y. André (Paris), F. Zucconi (Udine), F. Catanese (Bayreuth), A. Rapinchuk (U. of Virginia), Gao (CNRS, Paris).

I took part as invited speaker at several international congresses, e.g. at: Mathematisches Forschungsinstitut in Oberwolfach (Germany), Centre de Recherche Mathématique de Luminy (France), Banff International Research Station (Canada), Accademia Nazionale dei Lincei (Italy), Centro De Giorgi di Pisa (Italy), Fields Institute in Toronto (Canada), Schrödinger Institut in Vienna (Austria), Harish-Chandra Research Institute in Allahabad (India), Institute of Mathematical Sciences in Chennai (India), Research Institute for Mathematical Sciences in Kyoto (Japan), Academia Sinica (Taiwan).

I have been plenary speaker at *Journées arithmétiques* in Vilnius (2011).

I gave a plenary talk at *Giornate INdAM* (on-line event) in 2021.

I have also given talks at several universities, e.g. Paris, Strasbourg, Bordeaux, Lyon and Lille (France), Pisa, Rome, Trieste, Pavia, Torino, Cosenza (Italy), Graz (Austria), Montréal, Waterloo (Canada), Basel and ETH Zurich (Switzerland), Lubljana (Slovenia), Chennai (India), Tokyo and Kyoto (Japan), Bayreuth (Germany), Goteborg (Sweden).

I have been Member of the Institute for Advanced Study at Princeton (1997-98), of the Fields Institute at Toronto (autumn 2008), and was a visitor for periods from one to three months at: Institut de mathématiques de Jussieu (Paris, France), Schrödinger Institut at Vienna (Austria), Mathematical Science Institute at Chennai (India), Institut de Recherche Mathématique Avancée (Strasbourg).

I have been a correspondent member of the Istituto Veneto di Scienze Lettere ed Arti in the years 2016-2019.

Editorial duties. I serve as Editor of the following mathematical journals:

- Rendiconti dell'Istituto Matematico dell'Università di Trieste
- International Journal of Number Theory
- Annali di Matematica Pura e Applicata
- Rendiconti del Circolo Matematico di Palermo

Teaching activity.

My teaching activity has been mostly done at Udine University, where I taught Geometry and Number Theory at undergraduate level. Presently, I teach Mathematical Analysis to first year students in Computer Science. Also, I gave several mini-courses at doctoral or post-doctoral level at international (summer) schools, e.g.:

- 2010 *Integral points on algebraic varieties*, PhD course at the Institute for Mathematical Sciences in Chennai, India, fall term 2010-11.
- 2013 *Linear recurrent sequences and iterations of linear maps*, Kerala School of Mathematics, Calicut, India.
- 2013 *Integral points on algebraic varieties*, Ecole d'hiver sur les conjectures de Lang-Vojta, Luminy, France.
- 2015 *Torsion points*, Summer School on Arithmetic Geometry, Basel, Switzerland.
- 2019 *Arithmetic aspects of hyperbolicity*, Montréal, Canada.
- 2020-23 Collaboration to the Master in Intelligence and Cybersecurity, University of Udine.

- 2024 *Bounded generation for linear groups and Diophantine approximation*, ICTS in Bengaluru, India.

I supervised three PhD theses:

- *Rational pre-periodic points for rational maps*, 2006, by Jung-Kyu Canci (presently Professor at Luzern Fachhochschule, Switzerland);
- *Fields of moduli and fields of definitions of finite sets in \mathbf{P}^N* , 2011, by Andrea Marinatto;
- *Geometric Lang-Vojta Conjecture in the projective plane*, 2014, by Amos Turchet (presently Associate Professor at Università di Roma III, Rome).

I was co-advisor of PhD theses prepared at foreign universities, e.g. the one by Amedeo Scremin, Technische Universität Graz (Austria), 2004, and the one by Roland Paulin, ETH Zürich, 2014.

I have been supervisors of about twenty master theses.

Organizing activity and duties. I have been the director of the Doctoral School in Mathematics and Physics at Udine University and of the Undergraduate School in Mathematics. I'm presently the Dean of my Department.

I organized, together with prof. C. Gasbarri, the CIME School “Arithmetic Geometry” in 2009 (lecturers: Jean-Benoît Bost, Jean-Louis Colliot-Thélène, Peter Swinnerton-Dyer, Paul Vojta).

I was member of the organizing committees of meetings at Centro di Ricerca Matematico E. De Giorgi di Pisa, supported by ERC. I was also an organizer of the meeting “Specialization Problems in Diophantine Geometry”, Cetraro Italy, 2017.

I have co-organized the international meeting “Diophantische Approximation” at Oberwolfach, Germany, April 2022.

Main recent publications (complete list on MathSciNet or Zentralblatt f. Math):

- P. Corvaja, U. Zannier, Applications of Diophantine approximation to integral points and transcendence. Cambridge Tracts in Math., 212 Cambridge University Press, Cambridge, 2018. x+198 pp.
- Y. André, P. Corvaja, U. Zannier (with an Appendix by Z. Gao), The Betti map associated to a section of an abelian scheme. *Inv. Math.* **222** (2020), 161-202.
- F. Catanese, P. Corvaja, U. Zannier, Fibred algebraic surfaces and commutators in the symplectic group, *J. Algebra* **562** (2020), 200-228.
- P. Corvaja, A. Rapinchuk, J. Ren, U. Zannier, Non-virtually abelian anisotropic linear groups are not boundedly generated. *Inv. Math.* **227** (2022), 1-26.
- P. Corvaja, D. Masser, J. Demeio, U. Zannier, On the torsion values for sections of an elliptic scheme, *J. Reine Ang. Math.* **782** (2022), 1-41.
- P. Corvaja, J. Demeio, A. Javanpeykar, D. Lombardo, U. Zannier, On the distribution of rational points on ramified covers of abelian varieties, *Compos. Math.* **158** (2022), no.11, 2109-2155.

- P. Corvaja, J. Noguchi, U. Zannier, Analytic and rational sections of relative semi-abelian varieties, *Pure Appl. Math. Q.* **18** (2022), no.1, 177-209.
- P. Corvaja, F. Zucconi, On integral points of some Fano threefolds and their Hilbert schemes of lines and conics, *Rend. Circ. Mat. Palermo (2)* **72** (2023), no.6, 3107-3135.
- P. Corvaja, U. Zannier, Finiteness theorems on elliptical billiards and a variant of the dynamical Mordell-Lang conjecture, *Proc. Lond. Math. Soc. (3)* **127** (2023), no.5, 1268-1337.
- P. Corvaja, F. Zucconi, Bitangents to a quartic surface and infinitesimal deformations, *J. Diff. Geom.* (to appear).

Last modified: January 2024.