

Amos Turchet

Curriculum Vitae

Address

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🔄 *Last Updated: July 2025*

EMPLOYMENT

2023 – Associate Professor, Università di Roma Tre
2020 – 2023 Ricercatore a tempo determinato tipo B (tenure track), Università di Roma Tre
2019 – 2020 Junior Visitor, Scuola Normale Superiore di Pisa
2016 – 2019 Acting Assistant Professor, University of Washington (USA)
2014 – 2016 Postdoctoral Researcher, Chalmers University of Technology (Sweden)

VISITING APPOINTMENTS

Aug 2023 Visitor at NCTS Mathematical Division,
Taipei, Taiwan
May 2013 Academic guest, Rational Points, Rational Curves and Entire Holomorphic Curves on
Algebraic Varieties,
Centre de recherches mathématiques, Montréal, Canada
2012 – 2013 Visiting Researcher, Brown University, USA
Advisors: Prof.s Dan Abramovich and Joseph Silverman

EDUCATION

2014 Ph.D. Mathematics, Università degli studi di Udine (advisor: Pietro Corvaja)
2010 M.S. Mathematics, Università degli studi di Udine, cum laude
2007 Classical Guitar Diploma, Conservatorio A. Boito di Parma, 10/10

RESEARCH INTERESTS

Arithmetic and Algebraic Geometry, Number Theory

PUBLICATIONS

IN JOURNALS AND VOLUMES

1. Hypertangency of plane curves and the algebraic Exceptional set. (with L. Caporaso) – *Proceedings of the London Mathematical Society*, **130**: e70063. (2025)
doi: /10.1112/plms.70063
2. Rational Distances From Given Rational Points In The Plane. (with P. Corvaja and U. Zannier) – *Geometriae Dedicata* **219.4** (2025): 1-35.
doi: 10.1007/s10711-025-01019-0
3. Divisibility of polynomials and degeneracy of integral points. (with E. Rousseau and J.T.-Y. Wang). – *Mathematische Annalen* **388** (2024), no.2, 1969–1999.
doi: /10.1007/s00208-023-02564-3
4. Greatest common divisor results on semiabelian varieties and a conjecture of Silverman. (with F. Barroero and L. Capuano). – *Res. Number Theory* **10** (2024), no.1, Paper No. 17, 16 pp.
doi: /10.1007/s40993-023-00494-2
5. Around the Chevalley-Weil theorem. (with P. Corvaja and U. Zannier) – *L'Enseignement Mathématique* **68** (2022), no. 1-2, 217–235.
doi: 10.4171/lem/1027
6. Lang-Vojta Conjecture over function fields for surfaces dominating \mathbb{G}_m^2 . (with L. Capuano.) – *European Journal of Mathematics* **8** (2022) no. 2, 573–610.
doi: 10.1007/s40879-021-00502-8
7. Hyperbolicity And Uniformity Of Varieties Of Log General Type. (with K. Ascher and K. DeVleming.) – *International Mathematics Research Notices* **2022**, Issue 4, February 2022, 2532–2581.
doi: 10.1093/imrn/rnaa186
8. Nonspecial varieties and Generalized Lang-Vojta conjectures. (with E. Rousseau and J.T.-Y. Wang) – *Forum Math. Sigma* **9** (2021), Paper No. e11, 29 pp.
doi: 10.1017/fms.2021.8
9. The Erdős–Ulam problem, Lang’s Conjecture, and uniformity. (with K. Ascher and L. Braune) – *Bulletin of the London Mathematical Society* **52** (2020), no. 6, 1053–1063. doi: 10.1112/blms.12381
10. Fibered Threefolds and Lang-Vojta’s Conjecture over Function Fields. *Transactions of the American Mathematical Society* **369** (2017), no.12, 8537–8558.
doi: 10.1090/tran/6968
11. A fibered power theorem for pairs of log general type. (with K. Ascher.) *Algebra and Number Theory* **10** (2016), no. 7, 1581–1600.
doi: 10.2140/ant.2016.10.1581

SUBMITTED FOR PUBLICATION

12. The Algebraic Green-Griffiths-Lang Conjecture For Complements Of Very General Pairs Of Divisors (with K. Ascher and W. Yeong)
13. Tropical Curves Of Unibranch Points And Hypertangency (with L. Caporaso)
14. Simply Connectedness And Hyperbolicity (with C. Gasbarri, E. Rousseau and J.T.-Y. Wang)
15. Some examples of exceptional loci in Vojta Conjecture.

OTHER PUBLICATIONS

16. Hyperbolicity of varieties of log general type.
chapter in *Arithmetic Geometry of Logarithmic Pairs and Hyperbolicity of Moduli Spaces*, Nicole, Marc-Hubert (Ed.), CRM Short Courses - Springer International Publishing. doi: 10.1007/978-3-030-49864-1.
17. Invitation to Integral and Rational points on curves and surfaces. (with P. Das.)
Rational Points, Rational Curves, and Entire Holomorphic Curves on Projective Varieties, Contemporary Mathematics, vol. 654, Amer. Math. Soc., Providence, RI, 2015, pp. 53-73.
doi: 10.1090/conm/654/13215
18. Geometric Lang-Vojta Conjecture in the projective plane. Ph.D. Thesis, 2014.

LECTURE SERIES

- 2024 Training school in Algebraic Geometry and Arithmetic, Kigali, Rwanda, August 2024
Title: *Introduction to Diophantine Geometry*
- 2024 An AESIM school on Algebra, Number theory and their applications to Cryptography
Erbil, Kurdistan Region, Iraq, February 2024
Title: *Elliptic curves Cryptography*
- 2023 NCTS Mathematical Division, Taipei, Taiwan, August 2023
Title: *Uniformity Results in Diophantine Geometry*
- 2021 10th swiss-french workshop in Algebraic Geometry, Charmey, September 2021
Title: *Diophantine geometry and hyperbolicity properties of algebraic varieties*
- 2019 School (and Workshop) on Diophantine geometry and special varieties
Trento, September 2019, Supporting lecturer
- 2018 Geometry and arithmetic of orbifolds, Montréal December 2018
Title: *Arithmetic and Geometry of log pairs* (w. Kenny Ascher)

SEMINARS AND CONFERENCES AS SPEAKER

- 2025 Diophantine Days, 2025, Westlake University, Hangzhou, China
- 2024 Focused Workshop on Nevanlinna Theory and Hyperbolicity, Academia Sinica, Taipei, Taiwan

- Université de Strasbourg, Séminaire Arithmétique et géométrie algébrique, Strasbourg, France
- 8th Number Theory Meeting, Torino
- UC Irvine, Algebraic geometry seminar, Irvine, CA
- 2023 Convegno UMI, sezione Teoria dei Numeri, Pisa
- International Workshop On Several Complex Variables, Complex Geometry And Diophantine Geometry, Taipei, Taiwan
- CMND 2023 Thematic Program on Rationality and Hyperbolicity, University of Notre Dame, Notre Dame
- Università di Genova, Seminario di Teoria dei Numeri
- 2022 Université de Bretagne Occidentale, Séminaire Géométrie et Topologie, Brest, France
- Geometry and Arithmetic of Moduli Spaces, Pisa, Italy
- Geometric and Arithmetic Frontiers of Orbifolds, Montreal, Canada
- Foliations and Algebraic Geometry, Quimper, France
- 2021 Università di Bologna, Seminario di Algebra e Geometria
- Università La Sapienza, Seminario di Algebra e Geometria
- Università Tor Vergata, Geometry Seminar Tor Vergata
- Minisymposium "Number Theory" within the 8ECM (Online)
- Number Theory Online 2021 (Online)
- 2020 Università di Roma Tre, Geometry Seminar
- 2019 University of Freiburg, Seminar: Algebra, Zahlentheorie und algebraische Geometrie
- Topics On Nevanlinna Theory And Complex Hyperbolicities, Shanghai Center for Mathematical Sciences
- Université Paris-Sud, Audition pour MDC
- Diophantine Approximation and Value Distribution Theory at the interface of Arithmetic and Complex Hyperbolic Geometry. UQAM, Montréal
- Hawaii Number Theory 2019 conference (HINT 2019)
- Arithmetic Geometry Session
- Greater Vancouver Number Theory Day, UBC, Vancouver
- 2018 Canadian Math Society Winter Meeting, Vancouver
- Recent Advances in Arithmetic and Hyperbolic Geometry
- University of Oxford, Arithmetic Geometry Seminar
- Spring Eastern Sectional AMS Meeting, Portland University
- Special Session on Algebraic Geometry and its Connections
- University of Oxford, Algebraic Geometry Seminar
- 2017 BIRS, Diophantine Approximation and Algebraic Curves
- UBC, Algebraic Geometry Seminar
- 2016 University of Oregon, Number Theory Seminar
- University of Washington, Number Theory Seminar
- University of Washington, Algebra and Algebraic Geometry Seminar

- KTH, Seminar Algebra and Geometry
 Aix Marseille Université, Séminaire Géométrie, Dynamique et Topologie
 Universität Bayreuth, Algebraic Geometry Seminar
 Johannes Gutenberg University Mainz, SFB-Kolloquium
- 2015 Terzo Incontro Italiano di Teoria dei Numeri, Centro de Giorgi Pisa
 Quantitative arithmetic geometry, Mittag-Leffler Institute
 \mathbb{N}^3 -days 2, University of Copenhagen
 Chalmers University of Technology, Algebraic Geometry Seminar
- 2014 Universität Basel, Seminar Algebra and Geometry
 Banff International Research Station, Vojta's Conjectures
 Intercity workshop in Arakelov Theory, "Sapienza" Università di Roma
 On Lang and Vojta's conjectures, CIRM Marseille
- 2013 TULSF VIII (A meeting in Algebraic Geometry), Ljubljana University
 Brown University, Junior Arithmetic and Algebraic Geometry Seminars
- 2012 Moduli of Curves and Gromov-Witten Theory, Institut Fourier

SELECTED CONFERENCES AS A PARTICIPANT

- 2024 The Mordell conjecture 100 years later: MIT, Boston
 Lean for the Curious Mathematicians 2024, CIRM, Marseille
 Higher Dimensional Algebraic Geometry: James 60, San Diego
- 2022 Foliations in Algebraic and Birational Geometry, EPFL Lausanne
 Banff International Research Station, Specialisation and Effectiveness in Number Th.
- 2021 Banff International Research Station, Geometry via Arithmetic
- 2019 Topics in Rational and Integral Points, Universität Basel
 Birational Geometry and Hodge Theory – Entire Curves, Rational Curves and Foliation,
 CIRM Marseille
- 2018 International summer school on Arithmetic geometry, Università degli Studi di Salerno
 Workshop on effectivity and ineffectivity for unlikely intersections, University of Manchester
- 2017 Western Algebraic Geometry Symposium, Fall 2017, UCLA
 Specialization problems in Diophantine Geometry, Cetraro
 Western Algebraic Geometry Symposium, Spring 2017, UBC
 Banff International Research Station, Newton-Okunkov Bodies, Test Configurations,
 and Diophantine Geometry
- 2016 \mathbb{N}^3 -days 4, University of Copenhagen
- 2015 Banff International Research Station, Distribution of Rational and Holomorphic Curves
 in Algebraic Varieties
 2015 Summer Research Institute on Algebraic Geometry, University of Utah
 Final ERC meeting in Diophantine Geometry, Accademia dei Lincei

- 2014 \mathbb{N}^3 -days 1, University of Copenhagen
Second ERC Research Period on Diophantine Geometry, Cetraro
Géométrie Algébrique en Liberté, SISSA
- 2011 School and Conference on Modular Forms and Mock Modular Forms and their applications in Arithmetic, Geometry and Physics, ICTP

AWARDS AND GRANTS

- 2024 Grant for “Algebraic and Geometric Methods for Diophantine Problems”: 3000 Euro (NTF)
- 2024 Grant for “8th Minisymposium of the RNTA”: 2500 Euro (INDAM)
- 2023 Grant for “Winter Meeting in Algebra and Geometry”: 2000 Euro (Found. Compositio)
- 2023 Habilitation for Associate Professor in Algebra and Geometry (01/A2)
- 2019 Qualification for Maître de conférences
- 2018 Nominee, University of Washington Postdoc Mentoring Award
- 2017 Grant for “Where Geometry meets Number Theory, a conference for 60th birthday of P. Salberger” : 110.000 SEK (GoCAS) and 93.000 SEK (Swedish Research Council)
- 2016 Grant for “Number Theory Days 5” : 25.000 SEK (GoCAS)
- 2015 Grant for “Number Theory Days 3” : 35.000 SEK (GoCAS)
- 2014 Knut and Alice Wallenberg Foundation Travel grant
- 2011 – 2014 MIUR Ph.D. Scholarship

TEACHING

ROMA TRE UNIVERSITY, Professor

- 2025 Fall – AL410: Commutative Algebra
- 2025 Fall – Geometry for Electrical Engineering
- 2025 Spring – GE510: Algebraic Geometry 2
- 2024 Fall – Geometry for Electrical Engineering
- 2023 Fall – CR510: Elliptic Cryptography
- 2023 Fall – Geometry for Electrical Engineering
- 2022 Fall – CR510: Elliptic Cryptography
- 2022 Spring – GE220: Topology
- 2021 Spring – GE450: Algebraic Topology

ROMA TRE UNIVERSITY, Advance courses

- 2025 Abelian Varieties (PhD Course)
- 2024 Relative Manin-Mumford (graduate reading Course)
- 2022 Uniform Mordell (graduate reading Course)

UNIVERSITY OF WASHINGTON, Professor

- 2019 Spring Math 308 H: Matrix Algebra (Linear Algebra)
Winter Math 340 G: Abstract Linear Algebra

2018 Fall Math 308 C: Matrix Algebra (Linear Algebra)
 Math 308 D: Matrix Algebra (Linear Algebra)
 Spring Math 308 B: Matrix Algebra (Linear Algebra)
 Winter Math 582 G: Diophantine Geometry of Curves (Graduate Course)
 Math 308 D: Matrix Algebra (Linear Algebra)

2017 Fall Math 402: Introduction to Modern Algebra I (Group Theory)
 Spring Math 308 G: Matrix Algebra (Linear Algebra)
 Winter Math 308 A: Matrix Algebra (Linear Algebra)
 Math 308 D: Matrix Algebra (Linear Algebra)

2016 Fall Math 308 G: Matrix Algebra (Linear Algebra)

UNIVERSITY OF WASHINGTON, Reading courses

2018 Arithmetic of Elliptic Curves (1 graduate student)
 Uniformity of Rational points (4 undergraduate students)

2017 Diophantine Equations (4 undergraduate students)
 Primality Tests and Elliptic Curves (4 undergraduate students)
 Primality Tests and the AKS Theorem (4 undergraduate students)

CHALMERS UNIVERSITY OF TECHNOLOGY, Professor

2015 Scheme Theory (Graduate Course)

CHALMERS UNIVERSITY OF TECHNOLOGY, Teaching assistant

2015 MVE085: Multivariable Calculus

MVE016: Calculus II

2014 MVE085: Multivariable Calculus

UNIVERSITÀ DEGLI STUDI DI UDINE, Teaching assistant

2013 – 2014 Matematica Discreta per Informatica (Combinatorics, arithmetic and linear algebra)

2012 – 2013 Matematica Discreta per Informatica

2011 – 2012 Matematica Discreta per Informatica

Matematica per Architettura (Multivariable calculus and linear algebra)

2010 – 2011 Matematica per Architettura

CONFERENCE ORGANIZATION

ORGANIZER

2025 Algebraic and geometric methods for Diophantine problems - Pisa 2025

Co-organizers: Andrea Bandini, Ilaria Del Corso, Davide Lombardo, Fabrizio Barroero, Laura Capuano, Valerio Talamanca

Harmonies in Moduli Spaces, in occasion of Lucia Caporaso's birthday - Rome 2025

Co-organizers: Andrea Bruno, Margherita Lelli-Chiesa, Angelo Lopez, Margarida Melo, Francesca Merola, Massimiliano Pontecorvo, Luca Schaffler, Paola Supino, Nicola Tarasca, Valerio Talamanca

- 2024 Winter Meeting in Algebra and Geometry - Rome 2024
Co-organizers: D. Fiorenza, M. Lanini, G. Lido, F. Meazzini, L. Schaffler
- 8th Mini Symposium of the RNTA and Atelier Pari/GP
Co-organizers: F. Barroero, C. Bertolin, L. Capuano, M. Monsurrò, F. Pappalardi, F. Pellarin, V. Talamanca, F. Tropeano
- 2023 Winter Meeting in Algebra and Geometry - Rome 2023
Co-organizers: B. Bolognese, D. Fiorenza, M. Lanini
- 7th Mini Symposium of the RNTA and 1st Atelier Lean
Co-organizers: F. Barroero, C. Bertolin, L. Capuano, M. Monsurrò, F. Pappalardi, F. Pellarin, V. Talamanca
- 2022 Winter Meeting in Algebra and Geometry - Rome 2022
Co-organizers: B. Bolognese, D. Fiorenza, M. Lanini
- Leuca2022, Celebrating Claude Levesque's, Damien Roy's and Michel Waldschmidt's birthdays
Co-organizers: F. Barroero, D. Cafiero, L. Capuano, A. Mori, F. Pappalardi, V. Talamanca
- Algebraic Geometry in Roma Tre, On the occasion of Sandro Verra's 70th birthday
Co-organizers: A. Bruno, L. Caporaso, M. Lelli-Chiesa, A. F. Lopez, M. Melo, F. Merola, M. Pontecorvo, E. Sernesi, P. Supino, V. Talamanca, F. Viviani.
- 2021 Algebraic geometry conference - Christmas in Rome 2021
Co-organizers: B. Bolognese, E. Fatighenti, R. Fringuelli
- 2019 AMS Joint Central and Western Sectional Meeting:
Special session on "Arithmetic Geometry and its connections"
Co-organizer: L. Capuano
- 2017 Where Geometry meets Number Theory, a conference for 60th birthday of P. Salberger
Co-organizer: J. Brandes, T. Browning, O. Marmon
- 2016 \mathbb{N}^3 -days 5 at Chalmers University
Co-organizers: J. Brandes, D. Eriksson, P. Salberger, M. Westerholt-Raum
- 2015 \mathbb{N}^3 -days 3 at Chalmers University
Co-organizer: D. Eriksson, P. Salberger, M. Westerholt-Raum
- 2011 9th Metaheuristics International Conference (Local Organizer)

ADVISING

PH.D. STUDENTS

- 2024 - Danilo Avaro, Sapienza Università di Roma
- 2024 - Ilaria Cruciani, Università Roma Tre (co-supervisor: L. Capuano)

THESIS SUPERVISED

- 2025 Aurora Guarnieri, Università Roma Tre - Undergraduate Thesis
"The Seifert Van Kampen Theorem"
- 2024 Domenico Marino, Sapienza Università Roma - Master thesis:
"Height Inequality and applications to the Uniform Mordell Conjecture"

- 2023 Cecilia Perucca, Università Roma Tre - Undergraduate thesis:
 “Algoritmo Mapper e Omologia Persistente”
- 2016 Stepan Maximov, Trang Nguyen, Robin Sorsa Sigurdson, Olivia Stalin
 Chalmers University of Technology - Undergraduate thesis:
 “Primality Tests and the AKS primality test”

RESEARCH PROJECTS FOR UNDERGRADUATES

- 2018 Washington Experimental Mathematical Lab: Uniformity of Diophantine Equations
- 2017 Washington Experimental Mathematical Lab: Elliptic Curves and Primality Tests
 Washington Experimental Mathematical Lab: The AKS Primality Test

OUTREACH

- 2025 Lecturer, Professione ricercatore - Roma Tre University
- 2024 Lecturer, Professione ricercatore - Roma Tre University
- 2022 Lecturer, Professione ricercatore - Roma Tre University
- 2018 Lecturer, Math Day - University of Washington
- 2017 Lecturer, Math Day - University of Washington

SERVICE

DEPARTMENTAL SERVICE

- 2021 – pres. Roma Tre University: Organizer of the Geometry Seminar
 Roma Tre University: Library representative for the Mathematics Section
- 2018 Leading Acting Assistant Professor (guidance for new postdocs)
- 2014 – 2016 Chalmers University of Technology: Organizer of the Algebraic Geometry and Number Theory Seminar

COMMUNITY SERVICE

Referee for Annales Scientifiques de l'ENS, Annali SNS, Compositio, Forum of Mathematics Sigma, IMRN, International Journal of Number Theory, Journal de Théorie des Nombres de Bordeaux, Journal of the LMS, Journal of Pure and Applied Algebra, Mathematica Scandinava, Mathematische Zeitschrift, Periodica Mathematica Hungarica, Transactions of the AMS

Reviewer for MathSciNet, Zentralblatt MATH

Member of the Unione Matematica Italiana

Member of the UMI group "Cooperazione Internazionale con il Sud Globale" for the cooperation with the Global south.