CURRICULUM VITAE

STEFANO MARSEGLIA

PERSONAL INFORMATION

- Name: Stefano Marseglia
- Title: Ph.D in Mathematics, June 28, 2018. Stockholm University.
- Date of birth: October 5, 1989.
- Email: stefano.marseglia89@gmail.com
- Webpage: `https://stmar89.github.io/`
- Orcid: 0000-0003-1648-4938

ACADEMIC POSITIONS

- 2024, 01 September – current - Marie Skłodowska-Curie Action Fellow, Laboratoire Jean Alexandre Dieudonné (LJAD), Université Côte Azur, Nice, France.
- 2024, 01 January – 2024, 31 August - Postdoc, Gaati Laboratory, University of French Polynesia, Tahiti, under the mentorship of Gaetan Bisson, MELODIA project.
- 2021, 01 January – 2023, 31 December - VENI Postdoc, Utrecht University, Mathematical Institute, Netherlands.
- 2020 (declined) – KAW Postdoc, 2 years at MIT followed by 2 years in Sweden (in a university of my choice).
- 2019, 01 January – 2020, 31 December - Postdoc, Utrecht University, Mathematical Institute, Netherlands, under the mentorship of Carel Faber.
- 2018, 01 September – 2018, 31 December - Visiting Scientist, Max Planck Institute for Mathematics, Bonn, Germany, under the mentorship of Gerd Faltings.
- 2018, 17 July – 2018, 31 December - Postdoc, Stockholm University, Department of Mathematics, Sweden, under the mentorship of Jonas Bergström (on leave while in Bonn).
- 2013, 16 August – 2018, 11 July - Ph.D student under the supervision of Jonas Bergström, Stockholm University, Department of Mathematics, Sweden.

RESEARCH INTERESTS

Arithmetic Geometry and Number Theory, with focus on effective methods.
More precisely, my main interests are:

- Abelian varieties (especially over finite fields).
- Orders in various kind of algebras (ideal classes, classification of modules).
- Arithmetic of $\mathrm{GL}_n(\mathbb{Z})$ and the conjugacy problem.

MAJOR GRANTS

- 2023
  - 195 914.88 €: Marie Skłodowska-Curie Postdoctoral Fellowship - 2 year at the Université Côte d'Azur in Nice - MSCA-2023-PF-EF.
- 2020
  - 250 000 €: Veni postdoctoral Scholarship - 3 years at Utrecht University - NWO (Dutch Research Council).
  - 130 000 USD: 2 years long Postdoc grant at MIT (plus funding for 2 extra years at any Swedish university of my choice) - K&A Wallenbergs Stiftelse - declined in favour of the Veni.
- 2018
  - 8 400 €: 4-month long Postdoc grant - Max Planck Institute for Mathematics in Bonn.

PREVIOUS EDUCATION

- Ph.D in Mathematics, Stockholm University, Stockholm, Sweden, 28 June 2018.
- Licentiate in Mathematics, Stockholm University, Stockholm, Sweden, 2016.
- ALGANT Erasmus Mundus Master Programme (double degree), 2013:
  - Master of Mathematics, Università degli Studi di Padova, Italy, 2013.
  - Master of Science, Universiteit Leiden, the Netherlands, 2013.
- First Level Degree in Mathematics, Università degli Studi di Torino, 2011.

Last updated on March 14, 2025

REFERENCES

General

1)
- Name: Jonas Bergström
- Position: Associate Professor at Stockholm University
- Role: Ph.D supervisor, coauthor, I have been his teaching assistant for several courses.
- Email: jonasb@math.su.se
- Webpage: `https://www.su.se/profiles/jonab-1.190994`

2)
- Name: Christophe Ritzenthaler
- Position: Professor at University Rennes 1, and director of CIMPA
- Role: opponent at my Ph.D defense, co-teacher at a CIMPA school, he attended a mini-grad-course I taught at Rennes University; Ritzhentaler is currently my Marie-Curie postdoc supervisor.
- Email: christophe.ritzenthaler@univ-rennes1.fr
- Webpage: `https://perso.univ-rennes1.fr/christophe.ritzenthaler/`

3)
- Name: John Voight
- Position: Professor of Mathematics, University of Sydney
- Role: Voight is very familiar with my research work; in particular, being the new head of development of the computer algebra system Magma, Voight can comment on the computational sides of my research.
- Email: jvoight@gmail.com
- Webpage: `https://jvoight.github.io/`

4)
- Name: Carel Faber
- Position: Professor at Utrecht University
- Role: postdoc advisor, I have been his teaching assistant for one Mastermath courses, he attended a mini-grad-course I taught at Utrecht University.
- Email: C.F.Faber@uu.nl
- Webpage: `https://www.staff.science.uu.nl/~faber010/`

Teaching

4)
- Name: Barbara van den Berg
- Position: Director of studies at the Mathematical Institute at Utrecht University (Opleidingsdirecteur bachelor Wiskunde en bestuurslid Onderwijs)
- Email: b.n.vandenberg@uu.nl
- Webpage: `https://www.uu.nl/medewerkers/BNvandenBerg`

5)
- Name: Samuel Lundqvist
- Director of studies in mathematics at Stockholm University (Studierektor i matematik)
- Email: samuel@math.su.se
- Webpage: `http://staff.math.su.se/samuel/`

PUBLICATIONS

The numbering of papers and preprints is according to their first appearance on the arXiv.

- Preprints

(16) Labeling abelian varieties over finite fields
with Edgar Costa, Taylor Dupuy, David Roe and Christelle Vincent
https://arxiv.org/abs/2501.17012

(15) Abelian varieties over finite fields with commutative endomorphism algebra: theory and algorithms
with Jonas Bergström and Valentijn Karemaker
https://arxiv.org/abs/2409.08865

(14) Abelian surfaces over finite fields containing no curves of genus 3 or less
with Elena Berardini and Alejandro Giangreco Maidana
https://arxiv.org/abs/2408.02493

- Published and accepted articles

(13) Local isomorphism classes of fractional ideals of orders in étale algebras
Journal of Algebra 673 (2025), 77-102.
https://doi.org/10.1016/j.jalgebra.2025.02.030
http://arxiv.org/abs/2311.18571

(12) Abelian varieties over finite fields and their groups of rational points
with Caleb Springer,
Algebra & Number Theory 19 (2025), no. 3, 521–550.
https://doi.org/10.2140/ant.2025.19.521
https://arxiv.org/abs/2211.15280

(11) Ideal classes of orders in quaternion algebras
with Harry Smit and an Appendix by John Voight
Journal of Pure and Applied Algebra 228 (2024), no. 7, 107649.
https://doi.org/10.1016/j.jpaa.2024.107649
https://arxiv.org/abs/2211.13156

(10) Modules over orders, conjugacy classes of integral matrices, and abelian varieties over finite fields
Research in Number Theory 11 (2025) no. 1, paper No. 27.
Part of the proceedings of the Sixteenth Algorithmic Number Theory Symposium (ANTS XVI).
https://doi.org/10.1007/s40993-024-00584-9
https://arxiv.org/abs/2208.05409

(9) Cohen-Macaulay type of orders, generators and ideal classes
Journal of Algebra 658 (2024), 247-276.
https://doi.org/10.1016/j.jalgebra.2024.05.051
https://arxiv.org/abs/2206.03758

(8) Every finite abelian group is the group of rational points of an ordinary abelian variety over $\mathbb{F}_2$, $\mathbb{F}_3$ and $\mathbb{F}_5$
with Caleb Springer,
Proceedings of the American Mathematical Society 151 (2023), no. 2, 501-510.
https://doi.org/10.1090/proc/16127
https://arxiv.org/abs/2105.08125

(7) Polarizations of abelian varieties over finite fields via canonical liftings
with Jonas Bergström and Valentijn Karemaker,
International Mathematics Research Notices. IMRN (2023), no.4, 3194-3248.
https://doi.org/10.1093/imrn/rnab333
http://arxiv.org/abs/2101.05531

(6) Products and Polarizations of Super-Isolated Abelian Varieties
with Travis Scholl,
Mathematische Zeitschrift 300 (2022), no. 1, 445-462.
https://doi.org/10.1007/s00209-021-02791-x
http://arxiv.org/abs/2008.05738

(5) Computing base extensions of ordinary abelian varieties over finite fields
International Journal of Number Theory 18 (2022), no. 9, 1957-1974.
https://doi.org/10.1142/S1793042122501007
http://arxiv.org/abs/2003.09977

(4) Computing abelian varieties over finite fields isogenous to a power
Research in number theory 5 (2019) no. 4, paper no. 35.

https://doi.org/10.1007/s40993-019-0174-x
https://arxiv.org/abs/1808.03673

(3) Computing square-free polarized abelian varieties over finite fields
Mathematics of Computation 90 (2021), no. 328, 953-971.
https://doi.org/10.1090/mcom/3594
https://arxiv.org/abs/1805.10223

(2) Computing the ideal class monoid of an order
Journal of the London Mathematical Society 101 (2020), no. 3, 984-1007.
https://doi.org/10.1112/jlms.12294
https://arxiv.org/abs/1805.09671

(1) Super-multiplicativity of ideal norms in number fields
Acta Arithmetica 193 (2020), no. 1, 75-93.
https://doi.org/10.4064/aa181010-26-3
https://arxiv.org/abs/1810.02238

- Databases
  - LMFDB: Isomorphism classes of abelian varieties over finite fields, with endomorphism rings and polarizations.
    https://abvar.lmfdb.xyz/Variety/Abelian/Fq/

- Computer packages
  - Magma, over 11.000 lines of code:
    * AlgEt: Family=research; Audience=community; evolution=long term support; contribution=leader; Url=https://github.com/stmar89/AlgEt
      It provides functionalities to compute with orders in étale algebras over $\mathbb{Q}$. In particular, one can compute isomorphism classes of modules and the monoid of the ideal classes of the fractional ideals of the order.
    * IdlClQuat: Family=research; Audience=community; evolution=long term support; contribution=leader; Url=https://github.com/stmar89/IdlClQuat
      It computes the isomorphism classes of ideals of an order in a quaternion algebra.
      This is a collaboration with Harry Smit.
    * AbVarFq: Family=research; Audience=community; evolution=long term support; contribution=leader; Url=https://github.com/stmar89/AbVarFq
      It provides functionalities to compute isomorphism classes and polarizations (in the ordinary case) for isogeny classes which are ordinary or over the prime field.
    * PolsAbVarFpCanLift: Family=research; Audience=community; evolution=long term support; contribution=leader; Url=https://github.com/stmar89/PolsAbVarFpCanLift
      It contains code to compute polarizations for squarefree isogeny classes over a prime field even when they are not ordinary. It is an expansion of the package AbVarFq.
    * IsomClAbVarFqCommEndAlg: Family=research; Audience=community; evolution=long term support; contribution=leader; Url=https://github.com/stmar89/IsomClAbVarFqCommEndAlg
      A package to compute (unpolarized) Fq-isomorphism classes of abelian varieties over Fq belonging to an isogeny class with commutative Fq-endomorphism ring, for any finite field Fq. In particular, the code works for any p-rank. It is an expansion of the package AbVarFq.
  - Macaulay2 :
    * EllipticCurves : Family=research; Audience=community; evolution=no future; contribution=leader; Url=https://macaulay2.com/doc/Macaulay2/share/doc/Macaulay2/EllipticCurves/html/index.html
      This Macaulay2 package provides basic functionalities for computations with elliptic curves.
      It was written in collaboration with Alessandro Oneto.

- Monographs
  - Marseglia, S. (2018, defended on June 8). Computing abelian varieties over finite fields
    Ph.D Thesis, Stockholm University, under the supervision of Jonas Bergström.
  - Marseglia, S. (2016). Isomorphism classes of abelian varieties over finite fields
    Licentiate Thesis, Stockholm University, under the supervision of Jonas Bergström.
  - Marseglia, S. (2013). Super-multiplicativity of ideal norms in number fields
    Master Thesis, Universiteit Leiden, under the supervision of Bart de Smit.

TEACHING

Reverse chronological order in each section. Conducted in English, unless otherwise specified.
UU=at Utrecht University. SU=at Stockholm University.

- Complete courses: Lecturer, Examiner, Grading
  - *Group theory*, Bachelor course (intensive format), 2019/20, University College Utrecht.
  - *Mathematics of cryptography*, Bachelor course, (formal examiner: Jonas Bergström; the class could be taken by first-year master students as well), 2017/18, SU.
- Thesis Supervision
  - Master Thesis: Jun Jie Lin, *Isogeny Classes of Abelian Varieties over Finite Fields*, 2022/23, UU.
  - U-Talent, for high school students, 2022/23, UU.
  - Master Thesis: Noah Keupers, *A partial solution to the similarity extension problem*, 2021/22, UU.
  - Bachelor Thesis: Arjan de Boer, *Covering modules by proper submodules*, 2021/22, UU.
  - Bachelor Thesis: Jun Jie Lin, *Integer Factorization using Elliptic Curves*, 2020/21, UU.
  - Bachelor Thesis: Ward Jousma, *Elliptic curves: an introduction and their group structure over* $\mathbb{Z}/N\mathbb{Z}$, 2020/21, UU.
- Other lecturer activities, group supervision, second reader, etc.
  - Lecturer, *Elliptic Curves Over Finite Fields*, 1-day-class, 2023, Utrecht Summer School.
  - one computational class, *Introduction to Algebraic Varieties*, Bachelor course taught by Marta Pieropan, 2021/22 and 2023/23, UU.
  - Group Supervisor, *Communicatie in wiskunde*, Bachelor course, partly in Dutch, 2021/22, UU.
  - Second Reader Master Thesis : Anne Wouda, *Supersingular Isogeny Graphs and Orientations in Cryptography*, 2021/22, UU.
  - Second Reader Master Thesis : Mieke Wessel, *Notting but structure*, 2021/22, UU.
  - Group Supervisor, *Orientation in Mathematical Research*, Master course, 2021/22, UU.
  - Group Supervisor, *Communicatie in wiskunde*, Bachelor course, partly in Dutch, 2020/21, UU.
  - Group Supervisor, *Orientation in Mathematical Research*, Master course, 2020/21, UU.
  - Group Supervisor, *Orientation in Mathematical Research*, Master course, 2019/20, UU.
  - Lecturer, *Elliptic Curves Over Finite Fields*, 1-day-class, 2019, Utrecht Summer School.
- Lecturer in grad courses/schools
  - leader of the working group on "Abelian varieties over finite fields and their isogeny classes", at the CIMPA school "Effective Algebra and the LMFDB", at Makerere University, Uganda, Jan 13 - 24, 2025.
  - 8 hours of online lectures, *Ideal class monoid and computing abelian varieties over finite fields*, part of the CIMPA School *Modern Tools for Rational Points on Curves over Finite Fields*, with Anna Somoza Henares and Christophe Ritzenthaler, 2021.
  - 1 hour of online lecture, ANTS Summer School - European session, part of ANTS-XIV conference, *$\mathbb{Z}$-conjugacy classes of matrices and fractional ideals*, 2020.
  - 8 hours of lectures, *Ideal classes and abelian varieties over finite fields*, 2019, UU.
  - 8 hours of lectures, *Ideal classes and abelian varieties over finite fields*, 2018, Rennes Universty.
- Teaching Assistant
  - Exercise sessions and Grading, *Algebraic Geometry 2*, Mastermath, lecturers Carel Faber and Robin de Jong, 2019/20, UU.
  - Exercise sessions and Grading, *Mathematics of cryptography*, lecturer Wushi Goldring, 2016/17, SU.
  - Exercise sessions and Grading, *Commutative Algebra & Algebraic Geometry*, lecturers Jonas Bergström and David Rydh, 2016/17, SU.
  - Grading, *Abstract Algebra*, lecturer Wushi Goldring, 2016/17, SU.
  - Exercise sessions and Grading, *Mathematics of cryptography*, lecturer Jonas Bergström, 2015/16, SU.
  - Exercise sessions and Grading, *Mathematics of cryptography*, lecturer Karl Rökaeus, 2014/15, SU.
  - Exercise sessions and Grading, *Mathematics of cryptography*, lecturer Jonas Bergström, 2013/14, SU.
  - Tutoring (Handledning), *Matematik I*, in Swedish, 6 semesters between 2014 and 2017, SU.
  - Coordinator for the Tutoring for *Matematik I*, 3 semesters between 2016 and 2017, SU.
  - Tutoring (Handledning), *Lilla Bibliotek*, in Swedish, 4 semesters between 2014 and 2016, SU.
- Qualifications
  - I have attended a Course in Pedagogy by Prof. Tony Burden at Stockholm University.

REFEREE ACTIVITIES

- Complete reviews:
  - Mathematische Annalen
  - Experimental Mathematics
  - Mathematical Communications
  - International Journal of Number Theory
  - Mathematics of Computation
  - Research In Number Theory
  - ANTS : Algorithmic Number Theory Symposium
  - Journal of the European Mathematical Society
  - Proceedings of the American Mathematical Society
- Quick reviews:
  - Algebra and Number Theory
  - Research In Number Theory

SERVICES, ORGANIZATION AND OTHER ACTIVITIES

- at Utrecht University
  - Organizer of the AG Seminar, February - November 2023.
  - Member of the selection committee for a postdoc for Marta Pieropan, January 2023.
  - Workshop for Ph.D students: how to use git, vim, and ssh into a server, Spring 2022, together with Leandro Chiarini Medeiros.
  - Tutorial for Ph.D students and faculty: how to access a server and use Magma, Fall 2021.
  - Contribution to the μ-games (math and programming competition for students), Fall 2021.
  - Panelist for VENI/Rubicon/MSCA-IF Life Sciences discussion, June 29, 2021.
  - Member of the selection committee for a Ph.D student for Valentijn Karemaker, January 2020.
- at Stockholm University
  - Mini-Conference for Ph.D students in Mathematics (from Swedish Universities), May 22-23 2017.
  - Co-organizer of the Math-Ph.D seminar (2016-2018).
  - Secretary of the Ph.D council at the Math Department (2015-2018).

TALKS

- Invited
  - "Cohen-Macaulay type of endomorphism rings of abelian varieties over finite fields"
    Universität Bielefeld, Germany. July 02, 2024.
  - "Cohen-Macaulay type of endomorphism rings of abelian varieties over finite fields"
    Oberseminar, Universität Druisburg-Essen, Germany. May, 23, 2024.
  - "Computing isomorphism classes and polarisations of abelian varieties over finite fields"
    Institut Fourier, Grenoble, France. December 12, 2023.
  - "Local isomorphism classes of fractional ideals in étale algebras"
    AGNT Seminar, Leiden, Netherlands. November 29, 2023.
  - "Computing isomorphism classes and polarisations of abelian varieties over finite fields"
    CANARI Seminar, Bordeaux, France. November 14, 2023.
  - "Abelian varieties over finite fields"
    Algant Alumni Network Symposium (SYMPAAN), Abbaye de St Jacut de La Mer, France. October 5, 2023.
  - "Cohen-Macaulay type of endomorphism rings of abelian varieties over finite fields"
    Number Theory Seminar, MIT, USA. May 16, 2023.
  - "Cohen-Macaulay type of endomorphism rings of abelian varieties over finite fields"
    Algebra Seminar, University of Groningen, Netherlands. February 7, 2023.
  - "Polarizations of abelian varieties over finite fields via canonical liftings"
    KIAS Number Theory Seminar (online), Seoul, Republic of Korea. May 12, 2022.
  - "Polarizations of abelian varieties over finite fields via canonical liftings"
    Utrecht Geometry Center Seminar, Utrecht University, Netherlands. March 29, 2022.
  - "Computing Isomorphism Classes of Abelian Varieties over Finite Fields"
    VaNTAGe 11th series: Curves and abelian varieties over finite fields, (online). Feb 1, 2022.
  - "Computing Isomorphism Classes of Abelian Varieties over Finite Fields"
    Semi-Plenary Talk: Curves over finite fields - past, present and future (online). May 24, 2021.

- "Polarizations of abelian varieties over finite fields via canonical liftings"
  Wednesday Zoom (online), Stockholm University, Stockholm, Sweden. April 21, 2021.
- "Products and Polarizations of Super-Isolated Abelian Varieties"
  (Q)NTAG (online), Simon Fraser University, Burnaby, Canada. December 03, 2020.
- "Isomorphism classes of abelian varieties over finite fields"
  Number Theory Seminar, SU and KTH, Stockholm, Sweden. March 03, 2020.
- "Abelian varieties over finite fields isogenous to a power"
  Utrecht Geometry Center Seminar, Utrecht University, Netherlands. April 04, 2019.
- "Abelian varieties over finite fields isogenous to a power"
  Seminar: Institut de recherche mathématique Avancée, Université de Strasbourg, France. December 06, 2018.
- "Abelian varieties over finite fields isogenous to a power"
  Seminar: Institut de recherche mathématique de Rennes IRMAR, Rennes, France. November 16, 2018.
- "Computing isomorphism classes of abelian varieties over finite fields"
  Oberseminar: Max Planck Institute for Mathematics, Bonn. October 11, 2018.
- "Computing isomorphism classes of abelian varieties over finite fields"
  Number Theory Seminar, SU and KTH, Stockholm, Sweden. May 02, 2018.
- "Computing isomorphism classes of abelian varieties over finite fields"
  AGC^{2}T 2017 , CIRM, Luminy, France. June 21, 2017.

- Contributed and other
  - "Modules orders, conjugacy classes of integral matrices, and abelian varieties over finite fields"
    Sixteenth Algorithmic Number Theory Symposium ANTS-XVI, MIT, Cambridge, USA. July 18, 2024.
  - "Abelian varieties over finite fields"
    Gaati Lab, University of French Polynesia. February 14, 2024.
  - "Cohen-Macaulay type of endomorphism rings of abelian varieties over finite fields"
    AGC^{2}T 2023, CIRM, Luminy, France. June 6, 2023.
  - "Cohen-Macaulay type of endomorphism rings of abelian varieties over finite fields"
    AG Seminar, Utrecht University, Netherlands. March 1, 2023.
  - "Every finite abelian group is the group of rational points of an ordinary abelian variety over $\mathbb{F}_2$, $\mathbb{F}_3$ and $\mathbb{F}_5$"
    Contributed talk: DIAMANT Symposium, Utrecht, Netherlands. April 21, 2022.
  - "Polarizations of abelian varieties over finite fields via canonical liftings"
    Contributed Talk: AGCCT 2021 (online), CIRM, Luminy, France. June 1, 2021.
  - "Representing abelian varieties"
    Welcome Home 2019 , Università degli Studi di Torino, Turin, Italy. December 19, 2019.
  - "Isomorphism classes of abelian varieties over finite fields"
    Contributed talk: DIAMANT Symposium, De Bilt, Netherlands. November 28, 2019.
  - "Computing Abelian varieties over finite fields"
    Lightning Talk: Arithmetic of Low-Dimensional Abelian Varieties, ICERM, Providence, USA. June 04, 2019.
  - "Isomorphism classes of abelian varieties over finite fields"
    Contributed talk: Canadian Number Theory Association XV, Université Laval, Canada. July 12, 2018.
  - Ph.D thesis presentation
    Stockholm University, Sweden. June 08, 2018.
  - "Isomorphism classes of abelian varieties over finite fields"
    Contributed talk: The 4th meeting of the Roman Number Theory Symposium, Rome, Italy. April 18, 2018.
  - "Introduction to modular forms"
    SMC Pre-colloquium for Gerard van der Geer, AlbaNova, Stockholm, Sweden. September 27, 2017.
  - "The ideal class monoid of an order in a number field"
    Welcome Home 2016 , Università degli Studi di Torino, Turin, Italy. December 21, 2016.
  - "Isomorphism classes of abelian varieties over finite fields.
    Contributed talk: PIMS Summer School in Explicit Methods for Abelian Varieties.
    University of Calgary, Canada. June 18, 2016.
  - Licentiate thesis presentation
    Stockholm University, Sweden. June 13, 2016.
  - "Ideal class monoid of an order in number fields"
    Contributed talk: Stockholm-Uppsala Mini-Conference.
    Stockholm University, Sweden. May 12, 2016.
  - "Introduction to category theory"
    SMC Pre-colloquium for Volodymyr Mazorchuk, AlbaNova, Stockholm, Sweden. March 9, 2016.

– "Isomorphism classes of (principally polarized) abelian varieties over finite fields"
Welcome Home 2015 , Università degli Studi di Torino, Turin, Italy. December 22, 2015.

WORKSHOPS AND VISITS

- Short Visit, Stockholm University, Sweden, December 3-10, 2024.
- Workshop, Université de Neuchâtel, Switzerland, September 30 - October 2, 2024.
- Short Visit, Stockholm University, Sweden, June 2-7, 2024.
- Short Visit, Université de Bordeaux, France, November 13-17, 2023.
- Long Visit, MIT, USA, May 4-31, 2023.
- Short Visit, University College London, United Kingdom, November 15-22, 2022.
- Short Visit, Stockholm University, Sweden, May 28-June 5, 2022.
- Short Visit, Max Planck Institute for Mathematics in Bonn, Germany, May 15-20, 2022.
- Short Visit, Stockholm University, Sweden, November 27-December 3, 2021.
- Short Visit, Stockholm University, Sweden, March 2-13, 2020.
- Short Visit, Stockholm University, Sweden, June 8-12, 2019.
- Workshop: "Isomorphism classes of abelian varieties on the LMFDB", University of Vermont, USA, May 6-11, 2019.
- Short Visit, MIT, USA, May 1-5, 2019.
- Workshop: "Abelian varieties over finite fields", ICERM, Providence RI, USA, Jan 31-Feb 3, 2019.
- Short Visit, University of Rennes, France, November 12-16, 2018.

CONFERENCES ATTENDED

- $\mathbb{N}^3$ Days XXVI - Kiel University, Germany, November 28-30, 2024.
- ANTS XVI, Algorithmic Number Theory Symposium , MIT, Cambridge, USA, July 15-19, 2024.
- CAVARET, Curves, Abelian VArieties and RElated Topics, Barcelona, Spain, June 7-21, 2024.
- DIAMANT Symposium, Eindhoven, Netherlands, November 23-24, 2023.
- Algant Alumni Network Symposium (SYMPAAN), Abbaye de St Jacut de La Mer, France, October 2-6, 2023.
- AGC^{2}T 2023, CIRM, Luminy, France, June 5-9, 2023.
- DIAMANT Symposium, Utrecht, Netherlands, April 13, 2023.
- DIAMANT Symposium, Leiden, Netherlands, November 24-25, 2022.
- ANTS XV, Algorithmic Number Theory Symposium, University of Bristol, August 8 - 12, 2022.
- Carel Faber's 60th Birthday Conference, Institute Mittag-Leffler, Djursholm, Sweden, June 2-3, 2022.
- DIAMANT Symposium, Utrecht, Netherlands, April 21-22, 2022.
- DIAMANT Symposium, Utrecht, Netherlands, November 25-26, 2021.
- DIAMANT Symposium (online), April 7-8, 2021.
- AGC^{2}T 2021 (online), CIRM, Luminy, France, May 24-28, 2021.
- Curves Over Finite Fields : past, present and future (online), May 24-28, 2021.
- DIAMANT Symposium (online), November 26-27, 2020.
- DIAMANT Symposium, De Bilt, Netherlands, November 28-29, 2019.
- CMI-HIMR Summer School In Computational Number Theory, University of Bristol, UK, June 17-28, 2019.
- Arithmetic of Low-Dimensional Abelian Varieties, ICERM, Providence RI, USA, June 3-7, 2019.
- Curves and groups in families, Rennes, France, May 13-17, 2019.
- ANTS XIII, Algorithmic Number Theory Symposium, University of Wisconsin, Madison, July 16-20, 2018.
- CNTA XV, Canadian Number Theory Association Conference. University of Laval, Quebec city, July 9-13, 2018.
- $\mathbb{N}^3$ Days VIII / $\mathbb{N}^3$ week, Mittag-Leffler Institute, June 25-29, 2018.
- $\mathbb{N}^3$ Days VII University of Stockholm and KTH, Sweden, October 20-21, 2017.
- Master Class in Tropical Geometry, Stockholm University, Sweden, August 14-25 2017.
- Workshop on curves of low genus, Univ. Politècnica de Catalunya, Barcelona, July 13-15 2017.
- FoCM 2017: Foundations of Computational Mathematics, University of Barcelona, July 10th-12th, 2017.
- AGC^{2}T 2017: Arithmetic, Geometry, Cryptography and Coding Theory, CIRM, Luminy, June 19-23, 2017.
- $\mathbb{N}^3$ Days VI University of Copenhagen, Denmark, June 2-3 2017.
- Mini-Conference for Ph.D-Students in Mathematics, University of Stockholm, May 22-23 2017.
- Arizona Winter School 2017: Perfectoid Spaces, University of Arizona in Tucson, AZ, March 11-15, 2017.
- CNTA XV, Canadian Number Theory Association Conference, University of Calgary, Calgary, Alberta, June 20-24, 2016.
- Summer School in Explicit Methods for Abelian Varieties, University of Calgary, Calgary, Alberta, June 16-18, 2016.
- Stockholm-Uppsala Mini-Conference for Ph.D-Students in Mathematics, University of Stockholm. May 12-13 2016.
- 27th Nordic Congress of Mathematicians, Stockholm University, Stockholm, Sweden, March 16-20, 2016.
- 2015 Summer Research Institute on Algebraic Geometry, University of Utah, Salt Lake City, Utah, July 13-31, 2015.

- Graduate Workshop on Moduli of Curves Simons Center, Stonybrook University, USA, July 7-18, 2014.
- Nordfjordeid Summer school 2014. Toric degenerations and mirror symmetry, Nordfjordeid, Norway, June 16-20, 2014.
- CIMPA/TÜBITAK/GSU Summer School Algebraic Geometry and Number Theory, Galatasaray University, Istanbul, Turkey, June 2-13, 2014.

TRAVELLING AND OTHER GRANTS

- 2018
  - 2 800 € (28600 SEK) - Travelling grant - The Royal Swedish Academy of Sciences, Magnusson Fund.
- 2017
  - 500 € (5000 SEK) - Travelling grant - The Royal Swedish Academy of Sciences, Magnusson Fund.
  - 450 € (4500 SEK) - Travelling grant - Liljevalch resestipendier.
  - 1000 € (10000 SEK) - Grant (used to buy a laptop) - John Söderbergs and L&E Kinanders Fund.
  - 400 € (4000 SEK) - Travelling grant - K&A Wallenbergs Stiftelses resefond.
- 2016
  - 1400 € (14000 SEK) - Travelling grant - K&A Wallenberg Jubileumsdonation.
- 2015
  - 1500 € (15000 SEK) - Travelling grant - The Royal Swedish Academy of Sciences, Magnusson Fund.
- 2014
  - 1000 € (10000 SEK) - Travelling grant - The Royal Swedish Academy of Sciences, Magnusson Fund.

LANGUAGES

- Italian, native.
- English, fluent.
- French, beginner.
- Dutch, fair (B2 level - in 2022).
- Swedish, medium/advanced.