

# Curriculum Vitae

## Personal information

- Name: Stefano Marseglia
- Born: October 5, 1989.
- Email: stefanom@math.su.se
- Webpage: <http://staff.math.su.se/stefanom/>

## Current Position

- Department of Mathematics, Stockholm University, Stockholm, Sweden, August 2013–July 2018.
- Ph.D. in Mathematics, June 28, 2018 (under the supervision of Jonas Bergström).

## Research Interests

Arithmetic Geometry and Number Theory, with focus on computational aspects.

More precisely:

- Abelian varieties over finite fields.
- Ideal class monoid of orders in number fields.

## Publications

- Monographs
  - Marseglia, S. (defended on June 8, 2018). 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.
- Preprints, on arXiv
  - Marseglia, S. (2018). Computing the ideal class monoid of an order <https://arxiv.org/abs/1805.09671>
  - Marseglia, S. (2018). Computing square-free polarized abelian varieties over finite fields <https://arxiv.org/abs/1805.10223>
- Preprints, available upon request. To appear in my Ph.D thesis.

- Marseglia, S. (2018). Computing abelian varieties over finite fields isogenous to a power
- Marseglia, S. (2018). Computing base extensions of ordinary abelian varieties over a finite field

## Code

- Magma
  - Computing the ideal class monoid of an order in a product of number fields.  
(see personal webpage)
  - Computing isomorphism classes of square-free ordinary abelian varieties over finite fields.  
(see personal webpage)
- Macaulay2
  - Basic functions for Elliptic curves (with Alessandro Oneto).  
<http://www2.macaulay2.com/Macaulay2/doc/Macaulay2-1.11/share/doc/Macaulay2/EllipticCurves/html/>

## Teaching - Stockholms Universitet

- Spring 2018:
  - Lectures, Examination and Grading, Mathematics of cryptography, SU, in English
- Spring 2017:
  - Exercise sessions and Grading, Mathematics of cryptography, SU, in English
  - Tutoring (Handledning), Matematik I, SU, in Swedish
- Fall 2016:
  - Exercise sessions and Grading, Commutative Algebra & Algebraic Geometry, SU, in English
  - Grading - Abstract Algebra, SU, in English
  - Tutoring (Handledning), Matematik I, SU, in Swedish
- Spring 2016:
  - Exercise sessions and Grading, Mathematics of cryptography, SU, in English
  - Tutoring (Handledning), Matematik I, SU, in Swedish
  - Tutoring (Handledning), Lilla Bibliotek, SU, in Swedish
- Fall 2015:
  - Tutoring (Handledning), Matematik I, SU, in Swedish
  - Tutoring (Handledning), Lilla Bibliotek, SU, in Swedish.
- Spring 2015:
  - Exercise sessions and Grading, Mathematics of cryptography, SU, in English
  - Tutoring (Handledning), Matematik I, SU, in Swedish
  - Tutoring (Handledning), Lilla Bibliotek, SU, in Swedish
- Fall 2014:
  - Tutoring (Handledning), Matematik I, SU, in Swedish
  - Tutoring (Handledning), Lilla Bibliotek, SU, in Swedish
- Spring 2014:
  - Exercise sessions and Grading, Mathematics of cryptography, SU, in English

## Talks

- Ph.D thesis presentation.  
Place: Stockholms universitet, Sweden  
Date: June 08, 2018.
- Title: Computing isomorphism classes of abelian varieties over finite fields.  
Place: Number Theory Seminar, SU and KTH, Stockholm, Sweden.  
Date: May 02, 2018.
- Title: Isomorphism classes of Abelian varieties over finite fields.  
Place: The 4th meeting of the Roman Number Theory Symposium, Rome, Italy.  
Date: April 18, 2018.
- Title: Introduction to modular forms.  
Place: SMC Pre-colloquium , AlbaNova, Stockholm, Sweden.  
Date: September 27, 2017.
- Title: Computing isomorphism classes of abelian varieties over finite fields.  
Place: AGCCT 2017 , CIRM, Luminy, France.  
Date: June 21, 2017.
- Title: The ideal class monoid of an order in a number field.  
Place: Welcome Home 2016 , Università degli Studi di Torino, Turin, Italy.  
Date: December 21, 2016.
- Title: Isomorphism classes of abelian varieties over finite fields.  
Contributed talk: PIMS Summer School in Explicit Methods for Abelian Varieties,  
Place: University of Calgary, Canada.  
Date: June 18, 2016.
- Licentiate thesis presentation.  
Place: Stockholms universitet, Sweden  
Date: June 13, 2016.
- Title: Ideal class monoid of an order in number fields.  
Contributed talk: Stockholm-Uppsala Mini-Conference,  
Place: Stockholms universitet, Sweden  
Date: May 12, 2016.
- Title: Introduction to category theory.  
Place: SMC Pre-colloquium , AlbaNova, Stockholm, Sweden.  
Date: March 9, 2016.
- Title: Isomorphism classes of (principally polarized) abelian varieties over finite fields.  
Place: Welcome Home 2015 , Università degli Studi di Torino, Turin, Italy.  
Date: December 22, 2015.

## Organization and other activities

- Mini-Conference for PhD-Students in Mathematics (from Swedish Universities), May 22-23 2017, at SU.
- Co-organizer of the Math-PhD seminar, at SU (2016-2018).
- Secretary of the PhD council at the Math Department SU (2015-2018).

## Conferences and Workshops Attended

- 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.
- AGCCT 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 PhD-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 PhD-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.

## Previous Education

- Ph.D. in Mathematics, Stockholms Universitet, Stockholm, Sweden, 28 June 2018.
- Licentiate in Mathematics, Stockholms Universitet, 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.

## Languages

- Italian, native.
- English, fluent.
- Swedish, medium/advanced.

## Grants

- 2014
  - 1000 € (10000 SEK) - The Royal Swedish Academy of Sciences, G. S- Magnusson Fund.
- 2015
  - 1500 € (15000 SEK) - The Royal Swedish Academy of Sciences, G. S- Magnusson Fund.
- 2016
  - 1400 € (14000 SEK) - K&A Wallemborg Jubileumsdonationen
- 2017
  - 500 € (5000 SEK) - The Royal Swedish Academy of Sciences, G. S- Magnusson Fund.
  - 450 € (4500 SEK) - Liljevalch reserstipendier.
  - 1000 € (10000 SEK) - John Söderbergs and L&E Kinanders.
  - 400 € (4000 SEK) - K&A Wallenbergs Stiftelses resefond.
- 2018
  - 2 800 € (28600 SEK) - The Royal Swedish Academy of Sciences, G. S- Magnusson Fund.