

Born on September 11, 1995, in Belluno (BL), Italy.

Current position

Université d'Angers - LAREMA

POSTDOC POSITION (2-YEARS FUNDED BY THE ANR GRANT NEWMIRAGE)

- Mentor: Jean-Baptiste Campesato

Angers, France

Sept. 2025 - Aug. 2027

Past positions

Université Côte d'Azur - Laboratoire J. A. Dieudonné

DISTINGUISHED POSTDOC POSITION (1-YEAR + 1-YEAR RENEWAL FUNDED BY IdEX OF UNIVERSITÉ CÔTE D'AZUR)

- Mentor: Prof. Adam Parusiński

Nice, France

Sept. 2023 - Aug. 2025

Education

Università di Trento

PH.D. IN MATHEMATICS

- Thesis: "Global and local $\mathbb{Q}$ -algebrization problems in real algebraic geometry"
- Supervisor: Prof. Riccardo Ghiloni
- Referees: Prof. José Fernando (Universidad Complutense de Madrid), Prof. Antonio Lerario (SISSA)
- PhD thesis defence: May 10, 2023
- Final mark: Ph.D. degree in Mathematics cum laude

Trento, Italy

Nov. 2019 - Jan. 2023

Università di Trento

M.SC. IN MATHEMATICS, ADVANCED MATHEMATICS CURRICULUM

- Thesis: "Semi-algebraic Sets: geometric properties induced by stratifying families of polynomials and model theoretical applications on real closed extensions"
- Supervisor: Prof. Riccardo Ghiloni
- Final mark: 110/110 cum laude

Trento, Italy

Sep. 2017 - Oct. 2019

Università di Trento

B.SC. IN MATHEMATICS

Final mark: 106/110

Trento, Italy

Sep. 2014 - Sep. 2017

Scientific Habilitations

- 2025 **Qualification à Maître de Conférences (Associate Professor)**, Section 25 - Mathématiques.
Validity: 2025-2029 (5 years).

France

Fellowships & Awards

- 2024 **1-year renewal**, My project "Methods of Real Algebraic Geometry" supervised by Prof. Adam Parusiński has been awarded a one-year renewal of the postdoctoral fellowship at the Laboratoire J. A. Dieudonné funded by IdEX of Université Côte d'Azur.

Nice, France

- 2023 **Distinguished postdoc fellowship**, My project " $\mathbb{Q}$ -Algebraicity problems in real algebraic geometry" supervised by Prof. Adam Parusiński has been awarded a distinguished postdoc fellowship in general mathematics funded by the Laboratoire J. A. Dieudonné of Université Côte d'Azur.

Nice, France

Research interests

My research lies in the field of Real Algebraic Geometry, with a particular focus on the topology of real algebraic sets, as well as semialgebraic, subanalytic, and o-minimal geometry. I am especially interested in how these areas interact with other disciplines such as singularity theory, (applied) model theory, and hypercomplex analysis.

Publications & Preprints

On the first-order theories of quaternions and octonions

ENRICO SAVI

arXiv (submitted)

2024

A relative Nash-Tognoli theorem over $\mathbb{Q}$ and application to the $\mathbb{Q}$ -algebraicity problem

ENRICO SAVI

arXiv (submitted)

2023

The topology of real algebraic sets with isolated singularities is determined by the field of rational numbers

RICCARDO GHILONI, ENRICO SAVI

arXiv (submitted)

2023

On the degree of global smoothing mappings for subanalytic sets

ENRICO SAVI

Eur. J. Math.

2024

Global and local $\mathbb{Q}$ -algebrization problems in real algebraic geometry

ENRICO SAVI

Ph.D. Thesis

2023

Membership

GNSAGA - “Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni” of INdAM (Istituto Nazionale di Alta Matematica)

MEMBER

Since 2021

- I take part in the section “Algebraic geometry and commutative algebra”.

Theory of hypercomplex functions and applications

MEMBER

Since 2021

- Project funded by INdAM (Istituto Nazionale di Alta Matematica). Coordinator: Prof. Caterina Stoppato, University of Florence.

Organization

Seminar cycle “Doc in Progress”

ORGANIZER

Trento, Italy

Sep. 2020 - Jan. 2023

- The aim of this seminar cycle is to invite selected PhD students, from any area of mathematics, to give a talk on their own research. PhD students from the University of Trento are also allowed to participate as speakers. Here it is the link to our official [website](#).

Referee activities

Pacific Journal of Mathematics

JOURNAL

Pacific J. Math.

2025 -

Pure and Applied Mathematics Quarterly

JOURNAL

Pure Appl. Math. Q.

2024 -

National Science Centre

PROJECT PROPOSAL

Poland

2024 -

Invited talks

Jun. 12, 2025 **The Nash-Tognoli theorem over $\mathbb{Q}$ & the $\mathbb{Q}$ -algebraicity problem for isolated singularities**, “Singularities in Algebraic Geometry”, Centre Henri Lebesgue, Rennes, June 10-13, 2025.

Rennes, France

Sept. 6, 2024 **On the first-order theory of quaternions (and octonions)**, “Workshop di Analisi e Geometria Ipercomplessa”, Dipartimento di Matematica, Università di Trento, Sept. 5-6, 2024.

Trento, Italy

Oct. 31, 2023	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , “Research School in Real Algebraic Geometry”, SISSA and IGAP, Oct. 30 - Nov. 2, 2023.	<i>Trieste, Italy</i>
Sept. 4, 2023	Subfield-algebraic geometry III: the $\mathbb{Q}$-algebraicity problem , “Spanish+Polish Mathematical Meeting - Real Algebraic Geometry and Singularities (RAGS) thematic session”, Department of Mathematics, Uniwersytet Łódzki, Sept. 4-8, 2023.	<i>Łódź, Poland</i>
Aug. 29, 2023	On the embeddings of compact manifolds , “Three days between Analysis and Geometry in Trento: Second edition”, Department of Mathematics, University of Trento, Aug. 28-30, 2023.	<i>Trento, Italy</i>

Contributed talks

Jun. 23, 2025	The Nash-Tognoli theorem over $\mathbb{Q}$, “Tame geometry and extensions of functions - Pawłucki 70, Conference in honor of Wiesław Pawłucki’s 70th birthday”, Department of Mathematics, Jagiellonian University, June 23-27, 2025.	<i>Kraków, Poland</i>
Sept. 11, 2024	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , “Summer School in Real Algebraic Geometry and Hodge Theory”, TU Dresden, Sept. 9-13, 2024. .	<i>Dresden, Germany</i>
Jul. 26, 2024	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , “18th International Workshop on Real and Complex Singularities - Celebrating the 60th birthday of Juan José Nuño-Ballesteros”, Facultat de Farmàcia - Campus de Burjassot, Universitat de València, Jul. 21-26, 2024.	<i>València, Spain</i>
Sept. 15, 2022	The topology of real algebraic sets with isolated singularities is determined by the field of rational numbers , “Real Algebraic Geometry and Singularities, conference in honor of Wojciech Kucharz’s 70th birthday”, Department of Mathematics, Jagiellonian University, Sept. 12-17, 2022.	<i>Kraków, Poland</i>
May 27, 2022	The topology of real algebraic sets with isolated singularities is determined by the field of rational numbers , “100 UMI - 800 UniPD, First UMI meeting of Ph.D. students”, Department of Mathematics “Tullio Levi-Civita”, University of Padua, May 23-27, 2022.	<i>Padua, Italy</i>

Posters

Oct. 25, 2022	The topology of real algebraic sets with isolated singularities is determined by the field of rational numbers , “Real Algebraic Geometry”, CIRM, Luminy, Oct. 24-28, 2022.	<i>Luminy, France</i>
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Seminars

Apr. 8, 2025	A relative Nash-Tognoli theorem over $\mathbb{Q}$, Séminaires systèmes dynamiques et géométrie, Department of Mathematics, Université Angers.	<i>Angers, France</i>
Jan. 21, 2025	On the first-order theory of quaternions , Seminario del Dipartimento di Matematica, Department of Mathematics, Università di Ferrara.	<i>Ferrara, Italy</i>
Nov. 14, 2024	The $\mathbb{Q}$-algebraicity problem & realization of Poincaré-Reeb graphs , Aromath Days, Inria Sophia-Antipolis.	<i>Nice, France</i>
Oct. 7, 2024	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Séminaire sur les Singularités, Institut de Mathématiques de Jussieu-Paris Rive Gauche.	<i>Paris, France</i>
May 28, 2024	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Séminaire de l’équipe AROMATH, Inria Sophia-Antipolis.	<i>Biot, France</i>
May 16, 2024	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Séminaire de l’équipe de Géométrie, Laboratoire de Mathématique, Université Savoie Mont Blanc.	<i>Chambéry, France</i>
May 9, 2024	On the first-order theory of quaternions , Seminario del Dipartimento di Matematica, Department of Mathematics, Università di Trento.	<i>Trento, Italy</i>
Dec. 12, 2023	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Séminaires systèmes dynamiques et géométrie, Department of Mathematics, Université Angers.	<i>Angers, France</i>
Nov. 23, 2023	Journée de l’équipe ATG: The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Séminaire d’algèbre, topologie et géométrie, Laboratoire J. A. Dieudonné, Université Côte d’Azur.	<i>Nice, France</i>
Nov. 16, 2023	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Séminaire de Géométrie et de Topologie de Marseille, Department of Mathematics, Aix-Marseille Université.	<i>Marseille, France</i>
Nov. 8, 2023	The $\mathbb{Q}$-algebraicity problem in real algebraic geometry , Oberseminar, Department of Mathematics, Universität Tübingen.	<i>Tübingen, Germany</i>
Jun. 12, 2023	(Real) Algebraic Geometry over $\mathbb{Q}$, seminar cycle “BabyGeometri”, Department of Mathematics, Università di Pisa and Scuola Normale Superiore di Pisa.	<i>Pisa, Italy</i>

Apr. 20, 2023	(Real) Algebraic Geometry over $\mathbb{Q}$, seminar cycle “Doc in Progress”, Department of Mathematics, Università di Trento.	<i>Trento, Italy</i>
Nov. 24, 2021	Algebraic approximation techniques over the rationals , seminar cycle “Doc in Progress”, Department of Mathematics, Università di Trento.	<i>Trento, Italy</i>
May 25, 2021	Slice regular functions on real alternative algebras , webinar for the PhD course “Functions of a complex and hypercomplex variable” hold by Prof. Stoppato, Department of Mathematics, Università di Firenze.	<i>Firenze, Italy</i>
Apr. 28, 2021	Tognoli’s theorem , webinar for the seminar cycle “BabyGeometri”, Department of Mathematics, Università di Pisa and Scuola Normale Superiore di Pisa.	<i>Pisa, Italy</i>
Apr. 20, 2021	What is a semi-algebraic set , webinar for the seminar cycle “What is...”, Department of Mathematics, Università di Trento.	<i>Trento, Italy</i>
Nov. 28, 2020	What is the Nash conjecture , webinar for the seminar cycle “What is...”, Department of Mathematics, Università di Trento.	<i>Trento, Italy</i>

Teaching activities

Algèbre Commutative (M1 - M.Sc.)

TRAVAUX DIRIGÉS - 14H OF DIRECTED TRAVAIL

- Course holder: Prof. Christian Pauly.
- Description: Master course in Commutative Algebra.

Nice, France

Spring 2025

Algèbre linéaire I (L1 - B.Sc.)

TRAVAUX DIRIGÉS - 19H OF DIRECTED TRAVAIL

- Course holders: Prof. Adam Parusiński and Prof. Ursula Ludwig.
- Description: Second part of the first course in Linear Algebra.

Nice, France

Spring 2025

Geometria B - modulo I (B.Sc. in Mathematics)

ASSISTANT PROFESSOR - 44H OF THE COURSE AND 62H OF DIRECTED TRAVAIL IN TOTAL

- Course holder: Prof. Riccardo Ghiloni.
- Description: First course in general topology. My duties consisted in teaching part of the course, both theoretical notions and exercise sessions, the organization of directed travail sessions, preparation and correction of written exams.

Trento, Italy

Fall 2020-21-22

Geometria Differenziale (B.Sc. in Mathematics)

ASSISTANT PROFESSOR

- Course holder: Prof. Alessandro Perotti.
- Description: First course in differential geometry focusing on curves and surfaces in Euclidean three dimensional space. My duties consisted in the preparation and correction of exercises sheets and the organization of directed travail sessions.

Trento, Italy

Spring 2020-21-22-23

Fondamenti Matematici per l’Informatica (B.Sc. in Computer Science)

ASSISTANT PROFESSOR - 10H OF THE COURSE + 12H OF DIRECTED TRAVAIL IN TOTAL

- Course holder: Prof. Riccardo Ghiloni.
- Description: Basics of mathematics: induction principle, modular arithmetic and graph theory. My duties consisted in teaching part of the course, both theoretical notions and exercise sessions, the organization of directed travail sessions, preparation and correction of written exams.

Trento, Italy

Spring 2020-21-22

Algebra A (B.Sc. in Mathematics)

TUTOR - 26H OF DIRECTED TRAVAIL

- Course holder: Prof. Willem Adriaan de Graaf
- Description: First Algebra course.

Trento, Italy

Spring 2019

Analisi A (B.Sc. in Mathematics)

TUTOR - 44H OF DIRECTED TRAVAIL IN TOTAL

- Course holder: Prof. Raul Paolo Serapioni.
- Description: First Calculus course.

Trento, Italy

Fall 2018-19

Analisi 1 (B.Sc. in Physics)

TUTOR - 44H OF DIRECTED TRAVAIL IN TOTAL

- Course holder: Prof. Raul Paolo Serapioni.
- Description: First Calculus course.

Trento, Italy

Fall 2018-19

Skills

Programming	LaTeX (intermediate), MATLAB (beginner), JAVA (beginner)
Languages	Italian (native speaker), English (intermediate+ - B2 level), French (intermediate - B1 level)