Matilde Maccan

Curriculum Vitae

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Experience

2024-present Postdoc (E13 position), at Ruhr University Bochum, in the group of C. Lehn;

2021-2024 **PhD Student**, at IRMAR (Université de Rennes) and Institut Fourier (Université de Grenoble Alpes), under the supervision of M.Brion and M. Romagny.

Education

- 2019-2021 **Master Degree in Mathematics**, at Università di Torino, final grade 110/110 cum laude, thesis Unipotent algebraic groups over arbitrary fields, under the supervision of M. Romagny and C. Casagrande;
- 2020-2021 Master 2 Maths Fondamentales, at Université de Rennes, Erasmus Programme;
- 2019-2021 **Bachelor's Degree in Mathematics**, at Università di Torino, final grade 110/110 cum laude, thesis: Il Teorema di Poincaré-Hopf: aspetti analitici e algebrici, under the supervision of C. Casagrande.

(Pre)publications

- 2025 Maximal automorphism groups of surfaces, *Document here*, joint work with P. Fong, to appear in ZAG Seminar Proceedings
- 2024 Parabolic subgroup schemes and homogeneous varieties in small characteristics, *PhD thesis*, Manuscript here, defended in June 2024.
- 2024 Isotrivial elliptic surfaces in positive characteristic, preprint at arXiv:2405.11602, joint work with P. Fong, to appear in Documenta Mathematica.
- 2023 Parabolic subgroups in characteristics two and three, preprint at arXiv:2312.00415, to appear in Journal of the London Mathematical Society.
- 2023 Projective homogeneous varieties of Picard rank one in small characteristic, preprint at arXiv:2303.12391, to appear in Annali della Scuola Normale Superiore, Classe di Scienze, DOI: 10.2422/2036 2145.202307_013.

Research Talks

- 2025.05 Workshop Group Schemes Actions in Low Dimension, Lille
- 2025.04 Joint Seminar on Complex Algebraic Geometry and Complex Analysis, Wuppertal
- 2025.04 Séminaire Géométrie Algébrique, Géométrie Analytique, Théorie de Lie, Poitiers
- 2025.03 Séminaire de Géométrie, IMB, Bordeaux
- 2025.03 Seminari di Algebra e Geometria Algebrica, Torino
- 2025.03 Séminaire Algèbre et Géométries, IF, Grenoble
- 2025.03 Séminaire d'Arithmétique, UMPA, Lyon
- 2025.03 Colloque Tournant du RT Algèbre, Clermont-Ferrand
- 2025.02 Séminaire Géométrie Algébrique, Lille
- 2025.02 Séminaire Géométrie, Algèbre, Dynamique et Topologie, Dijon
- 2025.01 Seminar Algebraic Geometry, MPIM, Bonn
- 2024.12 Séminaire Géométrie et Topologie, LMBA, Brest
- 2024.11 Algebraic Geometry and Complex Geometry, CIRM, Luminy
- 2024.10 Oberseminar Algebraic Lie Theory, RUB, Bochum

- 2024.10 Workshop Algebraic Groups in a broad sense, Stockholm
- 2024.09 Minicourse: Moduli of K3s, Summer School on Real Algebraic Geometry and Hodge Theory, Dresden
- 2024.04 Séminaire Arithmétique et Géométrie Algébrique, IRMA, Strasbourg
- 2024.04 Séminaire Géométrie Algébrique, Laboratoire Paul Painlevé, Lille
- 2024.03 Séminaire Algèbre et Géométries, Institut Fourier, Grenoble
- 2024.02 13th Swiss-French Workshop in Algebraic Geometry, Charmey
- 2024.01 Algebraic Geometry Oberseminar, HHU, Düsseldorf
- 2023.11 Basel-Dijon-Lausanne Joint Seminars, Basel
- 2023.11 Number Theory Seminar, IMB, Bordeaux
- 2023.10 RéGA Seminar, IHP, Paris
- 2023.09 AGATA Seminar, IMAG, Montpellier
- 2023.08 Journées d'Etudes du GDR TLAG, IRMAR, Rennes
- 2023.06 Representation theory conference, ICJ, Lyon
- 2023.06 Séminaire de Géométrie, IECL, Nancy
- 2023.05 Arithmetic Geometry seminar, IRMAR, Rennes
- 2022.11 Schubert Seminar, online
- 2022.09 Algebra and Geometry PhD student seminar, IRMAR, Rennes
- 2022.05 PhD student seminar, ICJ, Lyon

Other Talks

- 2025.03 At what cost? Psychological and physical costs of working in math academia, Comprehensible Seminar, Grenoble, joint with psychologist A.Maccan
- 2024.03 A sex so little made to brave the thorns of science: representing female mathematicians, Comprehensible Seminar, Algebra and Geometry PhD student Seminar, Rennes
- 2024.01 A sex so little made to brave the thorns of science: representing female mathematicians, Comprehensible Seminar, Grenoble
- 2023.12 **Gruppi algebrici, tra l'oceano bretone e le Alpi**, Welcome Home Seminar, Dipartimento G. Peano, Turin
- 2023.12 La recherche en mathématiques fondamentales: quelques contre-exemples aux stéréotypes, Journée Filles, Maths et Informatique, Grenoble

Administrative and scientific responsibilities

- 2025 Organiser, CARE conference, website here
- 2023-present Reviewer service, zbMATH Open
 - 2023-2025 Seminar co-organiser, PhD student seminar and PhD days, Institut Fourier, Grenoble
 - 2022-2023 Student representative, Scientific committee of IRMAR, Rennes
 - 2022-2023 Seminar co-organiser, Algebra and Geometry PhD student seminar, IRMAR, Rennes

Teaching Experience

- 2025 Teaching Assistant, Analysis II SoSe25, Ruhr University Bochum, Germany
- 2024-2025 Teaching Assistant, Analysis I WS24/25, Ruhr University Bochum, Germany
- 2023-2024 Teacher, Course and Travaux Dirigés of MAT101 (L1 IMA), UGA, France
- 2021-2023 **Teaching Assistant**, Travaux Dirigés of *Outils Mathématiques 1 (L1 PCSTM)* and *Algèbre et Géométrie 1 (L1 Mathématiques)*, Université de Rennes, France
- 2019-2020 **Tutoring activities**, Geometria Uno (MFN1626) and Geometria Due (MFN1250), Università di Torino, Italy
- 2017-2018 **Tutor**, *Digital Math Training* project, financed by Fondazione CRT, Università di Torino, Italy (200 hours)

2016-2020 **Tutor**, Mathematical Olympiads Courses, *High School G. Ferraris* and *High School C. Cavour*, Turin, Italy

Scholarships

2016 Scolarship for entry to Bachelors degree courses in Mathematics, Awarded by Istituto Nazionale di Alta Matematica F. Severi

Languages

I speak Italian (native speaker), English and French at a professional working level. I have been teaching in French universities for the last 3 years. I am currently learning and teaching partly in German.