Davide Gori

Curriculum Vitae

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Research interests

Algebraic geometry, in particular: moduli spaces of curves, algebraic stacks and good moduli spaces, birational geometry of $\overline{M}_{q,n}$, algebraic groups.

Education

November Ph.D. in Mathematics, Sapienza University of Rome, Rome, Italy

2021 - Supervisor: Prof. Filippo Viviani.

2016 - 2022 "Diploma" in Mathematics, Scuola Normale Superiore, Pisa, Italy

2019 - 2021 Master's Degree (Laurea Magistrale) in Mathematics, University of Pisa, Italy

Grade: 110/110 cum laude.

Thesis title: The Moduli Space of Smooth Curves.

Thesis supervisor: Prof. Mattia Talpo.

2016 - 2019 Bachelor's Degree (Laurea Triennale) in Mathematics, University of Pisa, Italy

Grade: 110/110 cum laude.

Thesis title: De Rham Cohomology of Compact Lie Groups.

Thesis supervisor: Prof. Andrea Maffei.

2011/12- **High School Student**, Scientific Lyceum "Guglielmo Marconi", Carrara (MS), Italy,

2015/16 High School Diploma, July 2016

Visiting Positions

April 2023 – **Ph.D. visiting student**, *invited by A. Chiodo*, IMJ-PRG, Paris July 2023

25 January Ph.D. visiting student, invited by Jochen Heinloth and Ludvig Modin to work on

2024 – 03 the project: "Good moduli spaces of curves with A_k singularities", University of February Duisburg-Essen, Essen, Germany

February 2024

Talks

31 May 2024 **Moduli spaces in algebraic geometry, with an emphasis on moduli of curves**, *Rome, Italy*

DocTorV Seminars, Tor Vergata University of Rome.

28 May 2024 Classical and tropical moduli spaces of curves, combinatorial aspects, Rome,

Italy

YAMS Seminars, Sapienza University of Rome.

8 April 2022 **Moduli spaces and where to find them: an algebraic point of view**, *Rome, Italy*

MATH Talks, Sapienza University of Rome. Seminar for master students.

May 2020 Seminar, Recent results regarding Bertini's theorem, Pisa

Seminar based on article: The exceptional locus in the Bertini irreducibility theorem for a morphism (Bjorn Poonen, Kaloyan Slavov arXiv:2001.08672).

Supervisor: Prof. Tamás Szamuely.

Experience

Student exchange programs

September Erasmus+, Paris-Sud University (Paris XI), now replaced by the University of

2019 - Paris-Saclay, France

January 2020 40,5 ECTS (Master M2: Arithmétique, Analyse, Géométrie).

Events Organized

March - May Co-organizer of MATH talks, Rome, Italy

2022 Cycle of 12 seminars for master students at the Sapienza University of Rome helded by PhD students. Webpage: https://www.mat.uniroma1.it/ricerca/seminari/math.

Part-time collaborations

July 2020 Collaboration with Scuola Normale Superiore, Pisa, Italy

Study of cybersecurity attacks, and related defense countermeasures (paid collaboration, 95 hours)

November Collaboration with Scuola Normale Superiore, Pisa, Italy

2018 Creation of a Telegram bot for student use (paid collaboration, 50 hours)

Teaching experience

November Teacher at the local stage in Osimo, Osimo, Italy, two days stage organized by

2018 UMI, aimed to train participants for the local and national mathematics competitions

2022 **Tutor for the course Geometry 1 at Sapienza University of Rome**, Rome, Italy, One semester tutoring

2024 **Tutor for the course Algebra 1 at Sapienza University of Rome**, Rome, Italy, One semester tutoring

Selected Awards

June 2024 **Ermenegildo Zegna Founder's Scholarship**, Awarded for a visiting period at the University of Washington, hosted by Professor Jarod Alper.

2012 - 2016 Italian Mathematical Olympiad (ITAMO)

Detailed partecipations:

- 2012: Bronze medal;
- 2013: Silver medal;
- 2014: Gold medal;
- 2015: Silver medal;
- 2016: Gold medal (third place).

2014 Italian Mathematical Olympiad (ITAMO), team competition Second place.

- 2016 **Mediterranean Youth Mathematical Championship**, Rome, Italy Third place.
- 2015 Championnat International des Jeux Mathématiques et Logiques (CIJML), Paris, France.
- 2015 **Balkan Mathematical Olympiad (BMO)**, Athens, Greece Bronze medal.

Attended Conferences and Schools

- 16/09/24 **School on Deformation Theory IV**, Sapienza University of Rome, Rome, Italy,
- 20/09/24 https://www.donatellaiacono.it/sdt/sdt.html
- 09/09/24 GAP: Moduli spaces and higher structures, Sapienza University of
- 13/09/24 Rome, Rome, Italy, https://www1.mat.uniroma1.it/~fiorenza/GAP-Rome/GAP-XIX-2024-Rome.html
- 01/09/24 An Invitation to Derived Geometry, University of Padova, Padova, Italy, https:
- 07/09/24 //www.federicobambozzi.eu/derived_geometry_conference/index.html
- 21/07/24 Moduli Theory in Algebraic Geometry, University of Essex, Essex, UK, https:
- 27/07/24 //jesusmartinezgarcia.net/aggitate/
- 08/01/24 Equivariant methods in geometry, Isaac Newton Institute, Cambridge, UK,
- 12/01/24 https://www.newton.ac.uk/event/emgw01/
- 25/09/23 Singularities at CIRM, CIRM, Luminy, France, https://conferences.
- 29/09/23 cirm-math.fr/2839.html
- 28/08/23 VBAC Recent applications to the geometry of moduli spaces, ESAGA, Essen,
- 01/09/23 Germany, https://vbac2023.esaga.net/
- 11/07/23 AGNES, Intersection Theory on Moduli Spaces, Brown University,
- 14/07/23 Providence, Rhode Island, https://sites.google.com/site/agneshomepage/brown-2023-agnes-summer-school
- 27/02/23 Developments in moduli problems, American Institute of Mathematics, San Jose,
- 03/03/23 California, https://aimath.org/pastworkshops/moduliproblems.html
- 21/11/22 **Singularities in Paris 2022**, *Université Paris Cité*, Paris, France, https://sites.
- 25/11/22 google.com/view/singparis-2022/
- 05/09/22 COMB in CAMB: Combinatorial Methods in Algebraic Geometry
- 09/09/22 **in Cambridge**, Cambridge, England, https://sites.google.com/view/combincamb2022/
- 17/07/22 Geometry and arithmetic of moduli spaces, University of Pisa, Pisa, Italy,
- 23/07/22 https://events.dm.unipi.it/event/15/
- 03/07/22 **Singularities in Aussois**, *CNRS*, Aussois, France, https://indico.math.cnrs.
- 09/07/22 fr/event/7304/
- 27/06/22 SMSMS Mirror Simmetry and Moduli Spaces, Instituto Superior Técnico,
- 02/07/22 Lisbon, Portugal, https://www.math.tecnico.ulisboa.pt/~efranco/SMSMS/2022.html
- 06/06/22 Moduli spaces and stability conditions, CIRM, Levico Terme, Italy, https:
- 10/06/22 //sites.google.com/unitn.it/modulicirm/

16/05/22 Invariants in Algebraic Geometry, Institut de Mathématiques de Bourgogne,

20/05/22 Dijon, France, https://school-iag2020.math.cnrs.fr/

14/03/22 **2nd Marburger Arbeitsgemeinschaft Mathematik**, *Philipps-Universität Marburg*,

18/03/22 Marburg, Germany, School aimed to study the Toral Rank Conjecture. https://www.mathematik.uni-marburg.de/~agricola/TRC2022/

August 2018 Summer school on geometry organized by the Utrecht Geometry Centre, Utrecht, Netherlands

Aimed to cover a spectrum of modern geometry.

Stages

2012 - 2016 Stages organized by UMI (Italian Mathematical Union), Pisa, Italy

Aimed to choose the Itailan Team for iternational competition of mathematics. Detailed partecipations: Stage Senior (2012, 2013, 2014, 2015), Winter Camp (2014, 2015, 2016), Stage PreIMO (2014, 2015, 2016).

Languages

Italian Mother tongue

English C1

French B1

Certificated by Scuola Normale Superiore Certificated by Scuola Normale Superiore

Computer skills

Octave Intermediate

C Intermediate

LATEX Intermediate

Python Intermediate

SQL Basic

HTML Basic

Operating Linux, Windows

systems