

## ROBERTO SVALDI: Curriculum Vitae

Università degli Studi di Milano  
Dipartimento di Matematica “F. Enriques”  
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### CURRENT POSITION

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**Ricercatore a tempo determinato di tipo B (RTDB) and Rita Levi Montalcini Fellow.** 09.2022-present

Università degli Studi di Milano, Dipartimento di Matematica “F. Enriques”.

*The position of RTDB is a 3-year tenure-track position in the Italian system.*

*As a Montalcini Fellow, I have been carrying out research on my project “From birational geometry to its applications: Minimal Model Program, moduli spaces, and algebraic foliations” since 15.12.2022.*

### EMPLOYMENT HISTORY

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**Bernoulli Instructor and Marie Curie Fellow.** 07.2019-08.2022

École polytechnique fédérale de Lausanne, Institut de Mathématiques.

*The position of Bernoulli Instructor at EPFL is comparable to a fixed-term Lectureship or to an Assistant Professorship without tenure-track.*

*As a Marie Curie Fellow, hosted by the Chair of Algebraic Geometry, I carried out research on my project “Moduli and boundedness problems in Algebraic Geometry” from 01.07.2019 to 31.12.2021.*

**University Research Fellow.** 09.2015-06.2019

University of Cambridge, Department of Pure Mathematics and Mathematical Statistics.

Visiting Scholar at SISSA during academic year 2016-17.

*The University Research Fellowship is comparable to an independent postdoc position.*

**Fellow and College Lecturer in Pure Mathematics.** 10.2015-06.2019

Churchill College, Cambridge.

Visiting Scholar at SISSA during academic year 2016-17.

**Assegnista di ricerca (Post-Doc).** 10.2016-09.2017

Scuola Internazionale di Studi Superiori Avanzati, Area di Matematica.

Supervisor: Prof. Jacopo Stoppa. Funded under ERC Starting Grant no. 307119.

*I visited Professor Jacopo Stoppa at SISSA Trieste as part of a collaboration at the interface between birational algebraic geometry and complex geometry focused on the study of Kähler–Einstein metrics on algebraic varieties.*

### RESEARCH INTERESTS

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Minimal Model Program and its applications.

Birational geometry of Calabi–Yau and Fano varieties with applications to physics.

Boundedness questions in algebraic geometry and their topological implications.

The topology of singularities in algebraic geometry and interactions with physics.

Holomorphic foliations and dynamics on projective varieties.

Toric geometry and toroidal compactifications.

Hyperbolicity questions in algebraic geometry.

## EDUCATION

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- Ph. D. in Mathematics.** 09.2010-06.2015  
Massachusetts Institute of Technology, Department of Mathematics.  
Thesis: “*Log geometry and extremal contractions*”. Thesis defended on 27.03.2015.  
Advisor: Prof. J. M<sup>c</sup>Kernan.
- Laurea Specialistica in Matematica** (equivalent of M.S. in Mathematics). 09.2008-05.2010  
Università degli Studi di Roma 3, Faculty of Sciences.  
Thesis: “*On the cohomology algebras of compact Kähler manifolds and the Kodaira problem*”.  
Advisor: Prof. L. Caporaso.  
Graduated on 19.05.2010, with grade 110/110 cum laude.
- Laurea Triennale in Matematica** (equivalent of B.S. in Mathematics). 10.2005- 09.2008  
Università degli Studi di Pavia, Faculty of Sciences.  
Thesis: “*Riemann’s singularity theorem*”.  
Advisor: Prof. M. D. T. Cornalba.  
Graduated on 16.09.2008 with grade 110/110 cum laude.

## AWARDS, FELLOWSHIPS, GRANTS, HABILITATIONS, SCHOLARSHIPS

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### Awards

- Federigo Enriques Prize**, 2016, €2000. 03.2017  
Awarded by Unione Matematica Italiana and Fondazione Federigo Enriques.

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### Research grants obtained as PI

- PSR Grant**, PI, €24000. 08.2023  
Project title: *Moduli problems in algebraic geometry and foliation theory*.  
Funding by the University of Milan for incoming researchers that were attracted through a special recruitment program.
- Postdoctoral funding grant**, Co-PI, €56400. 11.2022  
Project title: *Boundedness and moduli problems in algebraic geometry and foliation theory*.  
Funded by the University of Milan for a 2-year postdoctoral research assistantship.
- Rita Levi Montalcini Fellowship**, PI, €233427,59. 12.2022-present  
Project title: *From birational geometry to its applications: Minimal Model Program, moduli spaces, and algebraic foliations*.  
Funded by the Italian Ministry for University and Research.
- Marie Skłodowska Curie Individual Fellowship**, PI, €191149,44. 07.2019-12.2021  
Project title: *Boundedness and Moduli problems in birational geometry*. Grant No. 842071.  
Funded by the European Commission.
- EPSRC Postdoctoral Fellowship**, PI, £293505,40. 02.2019  
Project title: *Moduli and boundedness problems in geometry*. Grant No. EP/S024808/1.  
Funded by the Engineering and Physical Sciences Research Council , UK. The fellowship was rejected for incompatibility with the MSCA Fellowship.

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### Research funding obtained as a mentor

- Postdoctoral Fellowship**, PI: Dr. P. Chaudhuri, €70000. 05.2023  
Funded by the Istituto Nazionale di Alta Matematica “F. Severi”, to be spent at Università degli Studi di Milano.

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### Travel grants and funding for academic events

- Grant** No. 550, Co-PI, Foundation Compositio, €9500. 03.2022  
*Funding for the organization of the workshop in September 2022.*
- Grant**, Co-PI, Bernoulli Center for Fundamental Studies, 35000CHF. 02.2022

*Funding for the organization of the workshop in September 2022.*

**Scheme 4 Grant**, Co-PI , London Mathematical Society, Ref.41916, £1000. 10.2019

*Funding for the visit to King's College London in February 2020.*

**Scheme 8 Grant**, PI, London Mathematical Society, Ref.81613, £4000. 06.2017

*Funding for the organization of the PhD School of December 2017.*

**AMS Graduate Student Travel Grant**, \$250. 03.2015

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### Habilitations

**Abilitazione scientifica nazionale** alla funzione di professore ordinario. 05.2023

*Italian national habilitation to the ranking of full professor.*

**Abilitazione scientifica nazionale** alla funzione di professore associato. 02.2022

*Italian national habilitation to the ranking of associate professor.*

**Qualification** aux fonctions de Maître de Conférences. 01.2019

*French national habilitation to the ranking of Maître de Conférences.*

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### Fellowships and Scholarships

**Full tuition and salary**, Massachusetts Institute of Technology. 09.2011-06.2015

**Praecis Presidential Fellowship**, Massachusetts Institute of Technology, \$40000. 09.2010-05.2011

**INdAM scholarship** for students of the Laurea Specialistica program, awarded by the National Institute for High Mathematics 'F. Severi', €9000. 04.2009-03.2011

**INdAM scholarship** for students of the Laurea Triennale program, awarded by the National Institute for High Mathematics 'F. Severi', €12000. 01.2006-12.2008

**Scholarship** at Collegio Borromeo and University Institute for Higher Studies, Pavia, Italy. 10.2005-10.2008

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### VISITING POSITIONS

Visitor at **King's College London** (Host: C. Spicer). 02.2025

Visitor at **University of Washington** (Host: G. Inchiostro). 10.2024

Participation to the **Junior Hausdorff Trimester Program "Algebraic geometry: derived categories, Hodge theory, and Chow groups"**. 09-12.2023

Visitor at **King's College London** (Host: C. Spicer). 07.2023

Visitor at **Università di Roma Tor Vergata** (Host: M. McQuillan). 04.2022

Visitor at **King's College London** (Host: C. Spicer). 02.2020

Visitor at **University of Bonn** (Host: L. Tasin). 10.2018

Visitor at **Princeton University** (Host: G. Di Cerbo). 03.2018

Visitor at **BICMR, Beijing** (Host: C. Xu). 10.2017

Visitor at **SISSA, Trieste** (Host: J. Stoppa). 10.2016-09.2017

Visitor at **IMPA, Rio de Janeiro** (Host: J. V. Pereira). 03-04.2016

Visitor at **Mathematics Department, UC San Diego**. 02-06.2015

Visitor at **Mathematics Department, Princeton University** under the Exchange Scholar Program. 09-12.2014

Visitor at **Mathematics Department, UC San Diego**. 10.2013-06.2014

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### PUBLICATIONS

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#### Articles in peer-reviewed journals

16. (with J. Moraga), A characterization of toric singularities, J. Math. Pures Appl. (9) 195 (2025), Paper No. 103620, 61 pp. DOI: 10.1016/j.matpur.2024.103620

15. (with S. Filipazzi, C. Hacon), Boundedness of elliptically fibered Calabi–Yau threefolds, accepted for publication at Journal of the European Mathematical Society (JEMS), 73 pp., arXiv:2112.01352.

14. (with C. Birkar, G. Di Cerbo), Boundedness of elliptic Calabi–Yau varieties with a rational section, J. Differential Geom. 128 (2024), no.2, 463–519. DOI: 10.4310/jdg/1727712887

13. (with S. Filipazzi), On the connectedness principle and dual complexes for generalized pairs, *Forum Math. Sigma* 11 (2023), Paper No. e33, 39pp. DOI: 10.1017/fms.2023.25.
12. (with C. Spicer), Effective generation for foliated surfaces: Results and applications, *J. Reine Angew. Math. (Crelle's Journal)* 795 (2023), 45–84. DOI: 10.1515/crelle-2022-0067.
11. (with H. Liu), Rational curves and strictly nef divisors on Calabi–Yau threefolds, *Doc. Math.* 27 (2022), 1581–1604. DOI: 10.4171/DM/904.
10. (with C. Spicer), Local and global applications of the Minimal Model Program for co-rank one foliations on threefolds, *J. Eur. Math. Soc. (JEMS)* 24 (2022), no. 11, 3969–4025. DOI: 10.4171/JEMS/1173.
9. (with L. Braun, J. Moraga, S. Filipazzi), The Jordan property for local fundamental groups, *Geom. Topol.* 26 (2022), no. 1, 283–319. DOI: 10.2140/gt.2022.26.283.
8. (with G. Di Cerbo), Birational boundedness of low dimensional elliptic Calabi-Yau varieties with a section, *Compos. Math.* 157 (2021), no. 8, 1766–1806. DOI: 10.1112/S0010437X2100717X.
7. (with W. Chen, G. Di Cerbo, J. Han, and C. Jiang), Birational boundedness of rationally connected Calabi-Yau threefolds, *Adv. Math.* 378 (2021), Paper No. 107541, 32 pp.. DOI: 10.1016/j.aim.2020.107541.
6. (with S. Filipazzi), Invariance of plurigenera and boundedness for generalized pairs, *Mat. Contemp.* 47 (2020), 114–150. DOI: 10.21711/231766362020/rmc476. Proceedings of the ICM Satellite “Moduli spaces in Algebraic Geometry and Applications”, Campinas, Brazil 2018.
5. Hyperbolicity for log canonical pairs and the Cone Theorem, *Sel. Math. New Ser.* (2019), no. 5, Paper No. 67, 23 pp.. DOI: 10.1007/s00029-019-0512-9.
4. (with J. V. Pereira), Effective algebraic integration in bounded genus, *Algebr. Geom.* 6 (2019), no. 4, 454–485. DOI: 10.14231/AG-2019-021.
3. (with A. Fanelli, G. Codogni, and L. Tasin), A note on the fibres of Mori fibre spaces, *Eur. J. Math.* 4 (2018), no. 3, 859–878. DOI: 10.1007/s40879-018-0219-z.
2. (with M. Brown, J. McKernan, H. R. Zong), A geometric characterization of toric varieties, *Duke Math. J.*, 167 (2018), no. 5, 923–968. DOI: 10.1215/00127094-2017-0047.
1. (with G. Codogni, A. Fanelli, L. Tasin), Fano varieties in Mori fibre spaces, *Int. Math. Res. Not. IMRN* 2016, no. 7, 2026–2067. DOI: 10.1093/imrn/rnv173.

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### Pre-prints

17. (with P. Cascini, J. Han, J. Liu, F. Meng, C. Spicer, L. Xie), Minimal model program for algebraically integrable adjoint foliated structures, submitted, 50 pp., arXiv:2408.14258.
18. (with P. Cascini, J. Han, J. Liu, F. Meng, C. Spicer, L. Xie), On finite generation and boundedness of adjoint foliated structures, submitted, 45 pp., arXiv:2504.10737.
19. (with P. Engel, S. Filipazzi, F. Greer, M. Mauri), Boundedness of some fibered K-trivial varieties, 129 pp., arXiv:2507.00973.

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### Surveys

20. On the structure of local and global singularities: Shokurov’s Conjecture, Proceedings of the “Kinosaki Algebraic Geometry Symposium 2017”, 12 pp., available electronically on the Kyoto University Research Information Repository.
21. Recent progress on the birational geometry of foliations on threefolds, *Oberwolfach Reports* 17 (2020), no. 2/3, 1002–1006 DOI: 10.4171/OWR/2020/19

## INVITED TALKS

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### Invited lectures series

<i>Boundedness questions for Calabi–Yau varieties,</i> CIME School ‘Calabi–Yau varieties’ Cetraro, Italy.	07.2024
<i>Boundedness for foliated surfaces,</i> Final conference of the ANR Project ‘Foliage’, Quimper, France.	03.2022
<i>A geometric characterization of toric varieties,</i> BAGS, Université de Lorraine.	03.2018

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### Colloquia

<i>The geometry of projective varieties,</i> online talk, SISSA, Trieste.	04.2021
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### Invited conference talks

<i>Boundedness theorems for fibered Calabi–Yau varieties.</i> Families of Kähler spaces, BICMR, Beijing.	06.2025
<i>Boundedness theorems for fibered Calabi–Yau varieties.</i> Curves, K3s and Hyperkählers Workshop, Universität Bonn.	06.2025
<i>Boundedness theorems for fibered Calabi–Yau varieties.</i> Families of Kähler spaces, CIRM, Luminy.	04.2025
<i>Adjoint foliated structures.</i> Foliations, birational geometry and applications, CIRM, Luminy.	02.2025
<i>Boundedness of fibered Calabi–Yau varieties.</i> K-trivial varieties and moduli, UC San Diego.	01.2025
<i>Boundedness of fibered Calabi–Yau varieties.</i> Genova-Torino-Milano Seminar, Politecnico di Torino.	11.2024
<i>Birational geometry of surface foliations: towards a moduli theory.</i> Fano varieties in Cetraro, Cetraro, Italia.	09.2024
<i>Boundedness for canonical models of foliated surfaces and adjoint foliated structures</i> Birational geometry of foliations, Fudan University.	08.2024
<i>The birational structure of log Calabi-Yau pairs.</i> Higher Dimensional Algebraic Geometry Celebrating James’ 60th, UC San Diego.	01.2024
<i>Birational geometry of surface foliations: towards a moduli theory.</i> International workshop on Birational Geometry, Nagoya University.	10.2023
<i>Spazi di moduli per superfici foliate di tipo generale.</i> 23rd Congress of the Unione Matematica Italiana, Pisa.	09.2023
<i>Birational geometry of surface foliations: towards a moduli theory.</i> Workshop on dynamics and birational geometry, King’s College London.	03.2023
<i>Minimal model program for foliated surfaces: a different approach.</i> Higher Dimensional Geometry in New York: Stability and Moduli, Simons Centre for Geometry and Physics, Stony Brook.	08.2022

<i>A geometric characterization of toric singularities and toric morphisms.</i> Birational Geometry Conference and 2022 meeting of the Swiss Mathematical Society, École polytechnique fédérale de Lausanne.	06.2022
<i>A characterization of toricness.</i> 2021 Workshop on Algebraic Geometry: Generalised Pairs and Applications, online conference, Chinese Academy of Sciences & Tsinghua University.	08.2021
<i>Boundedness of elliptic fibrations.</i> Projective and birational higher dimensional geometry, online conference, Università di Trieste.	04.2021
<i>Recent progress on the birational geometry of foliations on threefolds.</i> Algebraic Geometry: Moduli Spaces, Birational Geometry and Derived Aspects, MFO Oberwolfach.	07.2020
<i>Minimal Model Program for foliations on threefolds and applications.</i> Geometry and Dynamics of Foliations, online conference, CIRM, Marseille.	05.2020
<i>Birational boundedness of elliptic Calabi-Yau varieties.</i> Workshop on the geometry of elliptic fibrations & COW Seminar, University of Warwick.	02.2020
<i>A geometric characterization of toric morphisms.</i> From Trento to Geometry and back, Università di Trento.	12.2019
<i>Birational boundedness of elliptic Calabi-Yau varieties.</i> Moduli and stability conditions, Leibniz Universität Hannover.	07.2019
<i>Birational boundedness of elliptic Calabi-Yau varieties.</i> Western Algebraic Geometry Symposium, UC Berkeley.	04.2019
<i>Towards birational boundedness of elliptic Calabi-Yau varieties.</i> Moduli spaces in Algebraic Geometry and applications, ICM Satellite Conference, short communication, Campinas.	07.2018
<i>On the birational boundedness of the bases of elliptically fibered Calabi-Yau manifolds in low dimension.</i> Geometry and Physics of F-theory, BIRS, Banff.	01.2018
<i>On the geometry of Calabi-Yau varieties in low dimension.</i> Korean-Italian Meeting on Algebraic Geometry 2018, KIAS, Seoul.	01.2018
<i>Global vs. Local structure of singularities.</i> Kinosaki Algebraic Geometry Conference, Kinosaki, Japan.	10.2017
<i>Log birational boundedness of Calabi-Yau pairs.</i> Workshop on Fano varieties and Calabi-Yau varieties, Kobe University.	01.2017
<i>Log birational boundedness of Calabi-Yau pairs.</i> Birational Geometry and Characteristic $p > 0$ , CIRM, Marseille.	09.2016
<i>A geometric characterization of toric varieties.</i> Giornate di Geometria Algebrica ed Argomenti Correlati XXIII, Università di Catania.	05.2016



<i>Adjoint dimension of foliations.</i> Cambridge–Tokyo Workshop, I, University of Cambridge.	11.2015
<i>Hyperbolicity for log pairs.</i> Postgraduate Conference in Complex Geometry, University of Cambridge.	09.2015
<i>Hyperbolicity for log pairs.</i> Distribution of Rational and Holomorphic Curves in Algebraic Varieties, BIRS, Banff.	03.2015
<i>A geometric characterization of toric varieties.</i> The Geometry of Algebraic Varieties, AMS Sectional Meeting, Michigan State.	03.2015
<i>A geometric characterization of toric varieties.</i> Geometria e Rappresentazioni nella Capitale, II, Università degli Studi Roma 3.	12.2014

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#### Invited seminar talks

Seminario di Algebra e Geometria, Sapienza Università di Roma.	05.2025
Seminario di Algebra e Geometria, Università di Bologna.	05.2025
Algebraic Geometry Seminar, online talk, Institute for Research in Fundamental Sciences (IPM), Teheran.	03.2025
Algebraic Geometry Seminar, University of Illinois, Chicago.	01.2025
Algebra and Algebraic Geometry Seminar, University of Washington.	10.2024
Algebraic Geometry Seminar, SISSA, Trieste.	05.2024
Algebraic Geometry Seminar, UC San Diego.	03.2023
Oberseminar Algebraische Geometrie, Leibniz Universität Hannover.	01.2023
Seminario di Geometria ed Algebra, Università degli Studi di Milano.	10.2022
Algebraic Geometry Seminar, Universiteit van Amsterdam.	06.2022
Seminario di Geometria, Università di Roma Tre.	04.2022
Seminario di Geometria, Università di Roma Tor Vergata.	04.2022
Seminario di Algebra e Geometria, Sapienza Università di Roma.	04.2022
Explicit Birational Geometry Seminar, Fudan University.	02.2022
Algebraic Geometry Seminar, Columbia University.	01.2022
Oberseminar: Algebra, Zahlentheorie und algebraische Geometrie, online talk, Albert-Ludwigs-Universität Freiburg.	07.2021
Algebraic Geometry seminar, online talk, University of Kansas.	04.2021
Algebraic Geometry Seminar, online talk, Université de Bordeaux.	04.2021
Dutch online Algebraic Geometry seminar, online talk, Universiteit van Amsterdam.	03.2021
Algebraic Geometry Seminar, online talk, University of Utah.	02.2021
Algebraic Geometry Seminar, online talk, UC San Diego.	01.2021
Iskovskikh Seminar, online talk, Steklov Mathematical Institute, Moscow.	11.2020
Algebraic Geometry Seminar, online talk, Ohio State University.	11.2020
Algebraic Geometry Seminar, online talk, Max Planck Institute, Bonn.	05.2020
Algebraic Geometry Seminar, University of Princeton.	03.2020
KCL/UCL Geometry seminar, University College London.	02.2020
Seminario di Geometria Algebrica, Università di Torino.	03.2019

Edinburgh Geometry Seminar, University of Edinburgh.	03.2019
Séminaire d'homotopie en géométrie algébrique, Université de Toulouse.	01.2019
Oberseminar Algebraische Geometrie, Universität des Saarlandes.	11.2018
Algebraic Geometry Seminar, Max Planck Institute, Bonn.	10.2018
Groups, Arithmetic & Algebraic Geometry Seminar, EPF Lausanne.	09.2018
Seminario di Geometria Algebrica, Università di Trento.	05.2018
Geometry and Mathematical Physics seminar, Loughborough University.	05.2018
Warwick Algebraic Geometry Seminar, University of Warwick.	05.2018
Algebraic Geometry Seminar, UC San Diego.	04.2018
Algebraic Geometry Seminar, University of Utah.	04.2018
Algebraic Geometry Seminar, Princeton.	03.2018
Math-Physics Joint Seminar, UPenn.	03.2018
Mathematics–String Theory Seminar, IPMU, Tokyo.	10.2017
Algebraic Geometry Seminar, University of Tokyo.	10.2017
Log birational boundedness of Calabi-Yau pairs, BICMR, Beijing.	10.2017
Algebraic Geometry Seminar, University of Oslo.	04.2017
Seminario di Geometria Algebrica, SISSA, Trieste.	03.2017
Algebraic Geometry Seminar, University of Cambridge	03.2017
Algebraic Geometry Seminar, University of Tokyo.	01.2017
Groups, Arithmetic & Algebraic Geometry Seminar, EPFL.	11.2016
Algebraic Geometry Seminar, UC San Diego.	11.2016
Seminario de Álgebra, IMPA, Rio de Janeiro.	03.2016
Algebraic Geometry Seminar, Princeton University.	03.2016
Algebraic Geometry Seminar, Columbia University.	03.2016
Geometry and Mathematical Physics seminar, Loughborough University.	02.2016
EDGE Seminar, University of Edinburgh.	01.2016
Geometry and Topology Seminar, Imperial College.	11.2015
Algebraic Geometry Seminar, University of Cambridge.	11.2015
Seminario di Geometria Algebrica, Università degli Studi di Pavia.	10.2015
CIRGET Seminar, UQAM, Montreal.	03.2015
Algebraic Geometry Seminar, Johns Hopkins University.	02.2015
Algebraic Geometry Seminar, UT Austin.	02.2015
Seminario di Geometria Algebrica, Università degli Studi Roma 3.	12.2014
Algebraic Geometry Seminar, UC San Diego.	05.2014

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#### Contributed talks

<i>Hyperbolicity for log pairs.</i>	07.2015
AMS Summer Institute in Algebraic Geometry, Salt Lake City.	

#### POSTDOC SUPERVISION

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##### Postdocs

<b>Priyankur Chaudhuri</b> , funded by a grant from INDAM.	10.2023-present
<b>Saverio Andrea Secci</b> , funded by a grant of the University of Milan.	09.2023-present



## TEACHING

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### Teaching as a RTDB in Università degli Studi di Milano

<i>Algebraic surfaces</i> , Mathematics Master's course (42 hours).	Spring 2025
<i>Matematica del discreto</i> , 1st year service course for the Bachelor in IT (24 hours).	Spring 2025
<i>Matematica del discreto</i> , 1st year service course for the Bachelor in IT (24 hours).	Spring 2024
<i>Matematica del continuo</i> , 1st year service course for the Bachelor in IT (16 hours).	Spring 2024
<i>Matematica</i> , 1st year service course for the Bachelor in Biotechnology (16 hours).	Fall 2023
<i>Matematica</i> , 1st year service course for the Bachelor in Biotechnology (16 hours).	Fall 2022
<i>Matematica Generale</i> , 1st year service course for the Bachelor in Biology (44 hours).	Fall 2022

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### Teaching as Bernoulli Instructor at EPFL

<i>Complex Manifolds</i> , Mathematics Master's course (28 hours).	Spring 2022
<i>Analysis I</i> , 1st year service course for students of several departments of EPFL (56 hours).	Fall 2021
<i>Analysis I</i> , 1st year service course for students of several departments of EPFL (56 hours).	Fall 2020
<i>Rings and modules</i> , 3rd year Mathematics Bachelor course (28 hours).	Fall 2019
<i>Complex Manifolds</i> , Mathematics Master's course (28 hours).	Fall 2019

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### Teaching as a Research Fellow at University of Cambridge

<i>Positivity in Algebraic Geometry</i> , Part III course (16 hours).	Lent (Spring) 2018
<i>Linear Series</i> , Part III course (16 hours).	Lent (Spring) 2017
<i>Introduction to birational geometry</i> , Minicourse in 6 lectures (12 hours), part of the Ph.D. course "Topics in algebro-geometric stability", SISSA, Trieste.	12.2016-1.2017

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### Teaching as a College Lecturer at Churchill College

<i>Groups, Rings and Modules</i> . Supervisor for 10 students (25 hours).	Lent (Spring) 2019
<i>Geometry 1B</i> . Supervisor for 7 students (16 hours).	Lent (Spring) 2019
<i>Groups 1A</i> . Supervisor for 12 students (30 hours).	Michaelmas (Fall) 2018
<i>Group, Rings and Modules</i> . Supervisor for 9 students (26 hours).	Lent (Spring) 2018
<i>Geometry 1B</i> . Supervisor for 7 students (16 hours).	Lent (Spring) 2018
<i>Linear Algebra 1B</i> . Supervisor for 13 students (35 hours).	Michaelmas (Fall) 2017
<i>Group, Rings and Modules</i> . Supervisor for 8 students (16 hours).	Lent (Spring) 2017
<i>Geometry 1B</i> . Supervisor for 9 students (15 hours).	Lent (Spring) 2017
<i>Group, Rings and Modules</i> . Supervisor for 9 students (25 hours).	Lent (Spring) 2016
<i>Geometry 1B</i> . Supervisor for 10 students (16 hours).	Lent (Spring) 2016
<i>Analysis 1B</i> . Supervisor for 12 students (28 hours).	Michaelmas (Fall) 2015
<i>Topology and Metric Spaces</i> . Supervisor for 8 students (12 hours).	Michaelmas (Fall) 2015

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### Teaching as a graduate student at MIT

18.095, <i>Mathematics Lecture Series</i> . Organizer and Recitation Leader.	IAP 2015
18.085, <i>Computational Science and Engineering</i> . Course Instructor.	Summer 2013
18.095, <i>Mathematics Lecture Series</i> . Organizer and Recitation Leader.	IAP 2013
18.02, <i>Multivariable Calculus</i> . Teaching Assistant.	Fall 2012
18.085, <i>Mathematical Methods for Engineering</i> . Grading Assistant and responsible for Office Hours.	Spring 2012
18.112, <i>Complex Analysis</i> . Grading Assistant and responsible for Office Hours.	Fall 2011
18.755, <i>Lie Groups</i> . Grading Assistant and responsible for Office Hours.	Fall 2011

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### Teaching as an undergraduate student in Italy

<i>Complex Analysis</i> . Teaching Assistant, University of Rome 3.	Spring 2010
<i>Calculus 1</i> . Teaching Assistant, University of Rome 3.	Fall 2009
<i>General topology</i> . Teaching Assistant, University of Rome 3.	Spring 2009
<i>General Mathematics for Biological Sciences</i> . Teaching Assistant, University of Pavia.	Fall 2008

## STUDENT SUPERVISION

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### Thesis supervision

<b>Beatrice Bernasconi</b> , MA Thesis, “Algebraic foliations on surfaces”, Università degli Studi di Milano.	09.2024-07.2025
<b>Linus Rösler</b> , MA Thesis, “The geometry of elliptic fibrations”, EPFL.	02.2021-09.2021
<b>Anaëlle Pfister</b> , BA project (equivalent to a bachelor’s thesis), “An introduction to toric geometry”, EPFL.	02.2021-06.2021
<b>Luca Nyckess</b> , BA project (equivalent to a bachelor’s thesis), “An introduction to complex manifolds and Hodge Theory”, EPFL.	02.2020-06.2020
<b>Simen Moe</b> , Part III essay (equivalent to a master’s thesis), “An introduction to the Minimal Model Program”, University of Cambridge.	12.2018-05.2019

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### Study projects supervision

<b>Alberto Smailovic Funcasta</b> , one-semester study project, “Introduction to algebraic structures: from groups to modules”, EPFL.	02.2022-06.2022
<b>Linus Rösler</b> , MA project (one-semester project), “Elliptic surfaces in Algebraic Geometry”, EPFL.	09.2020-12.2020
<b>Maxime Matthey</b> , MA project (one-semester project), “Advanced topics in Commutative Algebra: Completions”, EPFL.	09.2020-12.2020
<b>Gheehyun Nahm</b> , one-semester study project on advanced topics in Algebraic Geometry, University of Cambridge.	08.2018-03.2019
<b>Leon Zhang</b> , Direct Reading Program, Supervisor for an undergraduate student on topics in Hodge Theory, MIT.	IAP 2015
<b>Minseon Shin</b> , Direct Reading Program, Supervisor for an undergraduate student on topics in Scheme Theory, MIT.	IAP 2013

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### Thesis committee participation

<b>Peter Simko</b> , “Fano varieties”, Master thesis, EPFL.	07.2017
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## ORGANIZATION OF CONFERENCES, SEMINARS AND WORKSHOPS

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### Conferences and workshops

<b>Higher-dimensional log Calabi–Yau pairs</b> , five-day workshop (team of 4), American Institute of Mathematics, Pasadena, USA.	10.2024
<b>Ricercatori in Algebra e Geometria 2024</b> , three-day workshop (team of 6), Milano, Italy.	09.2024
<b>Birational workshop</b> , five-day workshop (team of 4), part of the activities of the research trimester “Algebraic geometry: derived categories, Hodge theory, and Chow groups”, Hausdorff Institute for Mathematics, Bonn, Germany.	11.2023
<b>Foliations in Algebraic and Birational Geometry</b> , five-day workshop (team of 4), Bernoulli Center for Fundamental Studies, Lausanne, Switzerland.	09.2022
<b>Basel-Dijon-EPFL Workshop</b> , two-day workshop (team of 2), Lausanne, Switzerland.	05.2022
<b>Basel-Dijon-EPFL Workshop</b> , two-day workshop (team of 5), Basel, Switzerland.	11.2021
<b>Basel-Dijon-EPFL Workshop</b> , two-day workshop (team of 4), Lausanne, Switzerland.	11.2019
<b>Cambridge-Tokyo Algebraic Geometry Workshop, III</b> , two-day workshop, (team of 4), Cambridge, UK.	12.2018
<b>New advances in Fano manifolds</b> , five-day school for Ph.D. students, (team of 4), Cambridge, UK.	12.2017
<b>British Algebraic Geometry</b> , three-day conference, (local organizer), Cambridge, UK.	09.2017
<b>Cambridge-Tokyo Algebraic Geometry Workshop, II</b> , two-day workshop, (team of 4), Cambridge, UK.	03.2017
<b>MIT-RTG Mirror Symmetry Workshop</b> , five-day workshop, (team of 6), Big Bear Lake, US.	05.2013

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### Seminars

<b>Organizer</b> for Seminari Enriques – Algebra & Geometria, Università di Milano. <i>A colloquium in Algebra &amp; Geometry at the University of Milan.</i>	06.2024-present
<b>Organizer</b> for the Groups, Arithmetic & Algebraic Geometry Seminar, EPFL.	09.2019-08.2022

## OUTREACH ACTIVITIES

**HE+ Masterclass**, Churchill College, Cambridge 04.2019  
*I gave a lecture on modern geometry and organized an exercise session for high school students.*

**Open days**, Churchill College, Cambridge 07.2018  
*I gave a lecture on symmetries and geometry and organized an exercise session for high school students.*

**Orientation** for high-school students, Liceo Classico “G. Prati”, Trento 04.2012  
*I spoke to high school students about what are the challenges of becoming a maths student starting from a background in humanities.*

## ACADEMIC SERVICES

### Refereeing and reviewing activity

**Referee for academic journals:** (unless otherwise stated, 1 report per journal) Since 2015  
*Journal list:* Mathematics Research Letter, Michigan Journal of Mathematics, International Mathematics Research Notices (6 reports), Mathematische Annalen (2 reports), Annali della Scuola Normale Superiore di Pisa, Journal of Algebraic Geometry (3 reports), Inventiones Mathematicae (2 reports), International Journal of Mathematics (3 reports), Manuscripta Mathematica (2 reports), Advances in Mathematics (2 reports), Transactions of the AMS (2 reports), Annales de l’Institut Fourier, Journal of Differential Geometry (2 reports), Proceedings of the LMS (2 reports), Advances in geometry, Forum Math Pi (2 reports), Journal of the LMS, Electronic Research Archive, Mathematische Zeitschrift, Journal of the AMS, Compositio Mathematica (2 reports), Bulletin of the LMS.

**Referee for conference proceedings:** (by conference title) Since 2013  
 Groups of Automorphisms in Birational and Affine Geometry;  
 Moduli of K-stable Varieties;  
 Birational geometry, Kähler-Einstein metrics and degenerations.

**Referee for grants and fellowships applications** submitted to the Since 09.2019  
 Engineering and Physical Sciences Research Council, UK (3 grants).  
 Agencia Nacional de Investigación y Desarrollo, Chile (1 grant)

**Reviewer** for Zentralblatt and Mathscinet (7 reviews). Since 2014

### Mentoring activity

**Mentor** for 1st year students of the Bachelor in Mathematics, 10.2022-present  
 Università degli Studi di Milano.  
**Mentor** for the students of the Institute of Mathematics, EPFL. 11.2020-07.2021  
**Mentor** for postgraduate students, Churchill College. 10.2017-06.2019

### Committee participation

**Postdoc Hiring Committee:**  
 Università degli Studi di Milano, 1 position. 02.2025  
 Università degli Studi di Milano, 1 position. 09.2024  
 Chair of Algebraic Geometry, EPFL, 2 positions. 02.2022  
 Chair of Algebraic Geometry, EPFL, 2 positions. 02.2021

**Graduate studies Committee**, Università degli Studi di Milano. 05.2024-present

**Doctoral students Selection Committee**, Chair of Algebraic Geometry, EPFL. 02.2022

### **LANGUAGES**

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Italian: mother tongue.

English: professional proficiency.

French: intermediate level.

German: beginner level.

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Last update: July 31st 2025