# **ROBERTO SVALDI: Curriculum Vitae**

Universitá degli Studi di Milano Dipartimento di Matematica "F. Enriques" Via Saldini 50 Milan MI 20133 Italy email: roberto.svaldi@unimi.it home page: rsvaldi.github.io Phone number: +39 02 503 16153 ORCID ID: 0000-0003-1489-5899

### **CURRENT POSITION**

### Ricercato a tempo determinato di tipo B (RTDB)

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.* 

### **EMPLOYMENT HISTORY**

### 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, University of Cambridge,

09.2015-06.2019

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)**, Scuola Internazionale di Sstudi Superiori Avanzati, 10.2016-09.2017 Area di Matematica. Group of Geometry and Mathematical Physics.

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

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**

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. McKernan.

Laurea Specialistica in Matematica (equivalent of M.S. in Mathematics).

09.2008-05.2010

Universitá 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

Universitá 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

Awards	00.004
Federigo Enriques Prize, 2016, awarded by Unione Matematica Italiana and Fondazione Federigo Enriques (€2000).	03.2017
Research grants	
Rita Levi Montalcini Fellowship, PI, "From birational geometry	08.2022
o its applications: Minimal Model Program, moduli spaces, and algebraic foliations",	
unded by the Italian Ministry for Research and University. (€233427,59)	
Marie Skłodowska Curie Individual Fellowship, PI, "Boundedness	07.2019-12.2021
and Moduli problems in birational geometry", Grant No.842071. (€191149,44)	
EPSRC Postdoctoral Fellowship, PI, "Moduli and boundedness problems	02.2019
n geometry", EP/S024808/1, rejected in favour of the MSCA Fellowship. (£293505,40)	
Travel grants and funding for academic events	
Grant #550, Co-PI, Foundation Compositio, (9500EUR)	03.2022
for the organization of the workshop in September 2022.	
Grant, Co-PI, Bernoulli Center for Fundamental Studies, (35000CHF)	02.2022
for the organization of the workshop in September 2022.	
Scheme 4 Grant, Co-PI, London Mathematical Society, Ref.41916 (£1000),	10.2019
for the visit to King's College London in February 2020.	
Scheme 8 Grant, PI, London Mathematical Society, Ref.81613, (£4000)	06.2017
for the organization of the PhD School of December 2017.	
AMS Graduate Student Travel Grant (\$250).	03.2015
Habilitations	
Abilitazione scientifica nazionale a professore associato	02.2022
talian 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	
Fellowships and Scholarships	
Praecis Presidential Fellowship, Massachusetts Institute of Technology (\$40000).	09.2010-05.2011

Praecis Presidential Fellowship, Massachusetts Institute of Technology (\$40000).

INdAM scholarship for students of the Laurea Specialistica program,

awarded by the National Institute for High Mathematics "F. Severi" (€9000).

09.2010-05.2011

04.2009-03.2011

INdAM scholarship for students of the Laurea Triennale program,
 awarded by the National Institute for High Mathematics 'F. Severi' (€12000).
 Scholarship at Collegio Borromeo and University Institute for Higher Studies,
 Pavia, Italy.

### VISITING POSITIONS

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).	03.2016 - 04.2016
Visitor at Mathematics Department, UC San Diego.	02.2015 - 06.2015
Visitor at Mathematics Department, Princeton University under the	09.2014-12.2014
Exchange Scholar Program.	
Visitor at Mathematics Department, UC San Diego.	10.2013-06.2014

### **PUBLICATIONS**

### Articles in peer-reviewed journals

- 12. (joint with C. Spicer), Effective generation for foliated surfaces: results and applications, to appear in Crelle's Journal, 43 pp., arXiv:2104.11540.
- 11. (joint with H. Liu), Rational curves and strictly nef divisors on Calabi-Yau threefolds, Documenta Mathematica 27 (2022), 1581–1604. DOI: 10.25537/dm.2022v27.1581-1604
- 10. (joint with C. Spicer), Local and global applications of the Minimal Model Program for co-rank one foliations on threefolds, Journal of the European Mathematical Society 24 (2022), no. 11, 3969–4025. DOI: 10.4171/JEMS/1173.
- 9. (joint with L. Braun, J. Moraga, S. Filipazzi), The Jordan property for local fundamental groups, Geometry & Topology 26-1 (2022), 283–319. DOI: 10.2140/gt.2022.26.283.
- 8. (joint 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. (joint with W. Chen, G. Di Cerbo, J. Han, and C. Jiang), Birational boundedness of rationally connected Calabi-Yau threefolds, Adv. Math., 378 (2021), 107541, 32 pp., DOI: 10.1016/j.aim.2020.107541
- 6. (joint with S. Filipazzi), Invariance of plurigenera and boundedness for generalized pairs, Mat. Contemp. 47 (2020), 114150. 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 67, 23 pp., DOI: 10.1007/s00029-019-0512-9.
- 4. (joint with J. V. Pereira), Effective algebraic integration in bounded genus, Algebraic Geometry 6 (4) (2019) 454–485, DOI:10.14231/AG-2019-021.
- 3. (joint 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. (joint with M. Brown, J. McKernan, H. R. Zong), A geometric characterization of toric varieties, Duke Math. J., Volume 167, Number 5 (2018), 923–968, DOI:10.1215/00127094-2017-0047.
- 1. (joint with G. Codogni, A. Fanelli, L. Tasin), Fano varieties in Mori fibre spaces, Int. Math. Res. Not., Volume 2016, Issue 7: 2026–2067, DOI:10.1093/imrn/rnv173.

# **Pre-prints**

- 13. (joint with S. Filipazzi), On the connectedness principle and dual complexes for generalized pairs, submitted, 48 pp., arXiv:2010.08018.
- 14. (joint with C. Birkar, G. Di Cerbo), Boundedness of elliptic Calabi–Yau varieties with a rational section, submitted, 44 pp., arXiv:2010.09769.
- 15. (joint with J. Moraga), A characterization of toric singularities, submitted, 57 pp., arXiv:2108.01717.
- 16. (joint with S. Filipazzi, C. Hacon), Boundedness of elliptically fibered Calabi–Yau threefolds, submitted, 49pp, arXiv:2112.01352.

### Surveys

- 17. On the structure of local and global singularities: Shokurov's Conjecture, Proceedings for the Kinosaki algebraic geometry symposium 2017, 12 pages, available electronically on the Kyoto University Research Information Repository.
- 18. 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**

Invited lectures series	
Boundedness for foliated surfaces, Final conference of the ANR 'Project' Foliage, Quimper, France.	03.2022
A geometric characterization of toric varieties, BAGS, Université de Loraine.	03.2018
Colloquia The geometry of projective varieties, online talk, SISSA, Trieste.	04.2021
Invited conference talks	
Minimal model program for foliated surfaces: a different approach.  Higher Dimensional Geometry in New York: Stability and Moduli, Simons Centre at Stony	08.2022 Brook.
A geometric characterization of toric singularities and toric morphisms, Birational Geometry Conference and 2022 meeting of the Swiss Mathematical Society, EPF	06.2022 L.
A characterization of toricness, 2021 Workshop on Algebraic Geometry: Generalised Pairs and Applications, online conference, Chinese Academy of Sciences & Tsinghua University.	08.2021
Boundedness of elliptic fibrations, Projective and birational higher dimensional geometry, online conference, Universitá di Tric	04.2021 este
Recent progress on the birational geometry of foliations on threefolds, Algebraic Geometry: Moduli Spaces, Birational Geometry and Derived Aspects, MFO Oberv	07.2020 wolfach.
Minimal Model Program for foliations on threefolds and applications, Geometry and Dynamics of Foliations, online conference, CIRM.	05.2020
Birational boundedness of elliptic Calabi-Yau varieties, Workshop on the geometry of elliptic fibrations & COW Seminar, University of Warwick.	02.2020
A geometric characterization of toric morphisms, From Trento to Geometry and back, Universitá di Trento.	12.2019
Birational boundedness of elliptic Calabi-Yau varieties, Moduli and stability conditions, Leibniz Universitát Hannover.	07.2019
Birational boundedness of elliptic Calabi-Yau varieties, Western Algebraic Geometry Symposium, UC Berkeley.	04.2019
Towards birational boundedness of elliptic Calabi-Yau varieties, short communication Moduli spaces in Algebraic Geometry and applications, ICM Satellite Conference, Campina	07.2018 s.

On the birational boundedness of the bases of elliptically fibered Calabi-Yau manifolds in low dimension, Geometry and Physics of F-theory, BIRS.	01.2018
On the geometry of Calabi-Yau varieties in low dimension, Korean-Italian Meeting on Algebraic Geometry 2018, KIAS, Seoul.	
Global vs. Local structure of singularities, Kinosaki Algebraic Geometry Conference, Japan.	10.2017
Log birational boundedness of Calabi-Yau pairs, Workshop on Fano varieties and Calabi-Yau varieties, Kobe University.  Log birational boundedness of Calabi-Yau pairs, Birational Geometry and Characteristic $p>0$ , CIRM, Marseille.	01.2017 09.2016
Adjoint dimension of foliations, Cambridge–Tokyo Workshop, I, University of Cambridge.	11.2015
Hyperbolicity for log pairs, Postgraduate Conference in Complex Geometry, University of Cambridge.	09.2015
Hyperbolicity for log pairs, Distribution of Rational and Holomorphic Curves in Algebraic Varieties, Birs.	03.2015
A geometric characterization of toric varieties, The Geometry of Algebraic Varieties, AMS Sectional Meeting, Michigan State.	03.2015
A geometric characterization of toric varieties, Geometria e Rappresentazioni nella Capitale, II, Universitá degli Studi Roma 3.	12.2014
Invited seminar talks	
Seminario di Geometria ed Algebra, Università degli Studi di Milano.	10.2022
Algebraic Geometry Seminar, Universiteit van Amsterdam.	06.2022
Seminario di Geometria, Universitá di Roma Tre.	04.2022
Seminario di Geometria, Universitá di Roma Tor Vergata.	04.2022
Seminario di Algebra e Geometria, Sapienza Universitá 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), 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
Algebraic Geometry Seminar, University of Princeton.  KCL/UCL Geometry seminar, University College London.	
	03.2020 02.2020 03.2019

Teaching as a RTDB in Università degli Studi di Milano	
TEACHING	
Contributed talks  Hyperbolicity for log pairs, AMS Summer Institute in Algebraic Geometry, Salt Lake City.	07.2015
Algebraic Geometry Seminar, UC San Diego.	05.2014
Seminario di Geometria Algebrica, Universitá degli Studi Roma 3.	12.2014
Algebraic Geometry Seminar, UT Austin.	02.2015
Algebraic Geometry Seminar, Johns Hopkins University.	02.2015
CIRGET Seminar, UQAM, Montreal.	03.2015
Seminario di Geometria Algebrica, Universitá degli Studi di Pavia.	10.2015
Algebraic Geometry Seminar, University of Cambridge.	11.2015
Geometry and Topology Seminar, Imperial College.	11.2015
EDGE Seminar, University of Edinburgh.	01.2016
Geometry and Mathematical Physics seminar, Loughborough University.	02.2016
Algebraic Geometry Seminar, Columbia University.	03.2016
Algebraic Geometry Seminar, Princeton University.	03.2016
Seminario de Álgebra, IMPA, Rio de Janeiro.	03.2016
Algebraic Geometry Seminar, UC San Diego.	11.2016
Groups, Arithmetic & Algebraic Geometry Seminar, EPFL.	11.2016
Algebraic Geometry Seminar, University of Tokyo.	01.2017
Algebraic Geometry Seminar, University of Cambridge	03.2017
Seminario di Geometria Algebrica, SISSA, Trieste.	03.2017
Algebraic Geometry Seminar, University of Oslo.	04.2017
Log birational boundedness of Calabi-Yau pairs, BICMR, Beijing.	10.2017
Algebraic Geometry Seminar, University of Tokyo.	10.2017
Mathematics-String Theory Seminar, IPMU, Tokyo.	10.2017
Math-Physics Joint Seminar, UPenn.	03.2018
Algebraic Geometry Seminar, Princeton.	03.2018
Algebraic Geometry Seminar, University of Utah.	04.2018
Algebraic Geometry Seminar, UC San Diego.	04.2018
Warwick Algebraic Geometry Seminar, University of Warwick.	05.2018
Geometry and Mathematical Physics seminar, Loughborough University.	05.2018
Seminario di Geometria Algebrica, Universitá di Trento.	05.2018
Groups, Arithmetic & Algebraic Geometry Seminar, EPF Lausanne.	09.2018
Algebraic Geometry Seminar, Max Planck Institute, Bonn.	10.2018
Oberseminar Algebraische Geometrie, Universität des Saarlandes.	11.2018
Séminaire d'homotopie en géométrie algébrique, Université de Toulouse.	01.2019

Teaching as an Instructor at EPFL	Carrier at 2000
Complex Manifolds, Mathematics Master's course.	Spring 2022
Analysis I, 1st year Bachelor course.	Fall 2021
Analysis I, 1st year Bachelor course.	Fall 2020
Rings and modules, 3rd year Mathematics Bachelor course.	Fall 2019
Complex Manifolds, Mathematics Master's course.	Fall 2019
Teaching as a Research Fellow at University of Camb	
Positivity in Algebraic Geometry, Part III course.	Lent (Spring) 2018
Linear Series, Part III course.	Lent (Spring) 2017
Introduction to birational geometry, Minicourse in 6 lectures,	12/2016-1/2017
part of the Ph.D. course "Topics in algebro-geometric stability", SISSA, Trieste.	
Teaching as a College Lecturer at Churchill College	
Groups, Rings and Modules. Supervisor for 10 students (25 hours).	Lent (Spring) 2019
Geometry 1B. Supervisor for 7 students (16 hours).	Lent (Spring) 2019
Groups 1A. Supervisor for 12 students (30 hours).	Michaelmas (Fall) 2018
Group, Rings and Modules. Supervisor for 9 students (26 hours).	Lent (Spring) 2018
Geometry 1B. Supervisor for 7 students (16 hours).	Lent (Spring) 2018
Linear Algebra 1B. Supervisor for 13 students (35 hours).	Michaelmas (Fall) 2017
Group, Rings and Modules. Supervisor for 8 students (16 hours).	Lent (Spring) 2017
Geometry 1B. Supervisor for 9 students (15 hours).	Lent (Spring) 2017
Group, Rings and Modules. Supervisor for 9 students (25 hours).	Lent (Spring) 2016
Geometry 1B. Supervisor for 10 students (16 hours).	Lent (Spring) 2016
Analysis 1B. Supervisor for 12 students (28 hours).	Michaelmas (Fall) 2015
Topology and Metric Spaces. Supervisor for 8 students (12 hours).	Michaelmas (Fall) 2015
Teaching as a graduate student at MIT	
18.095, Mathematics Lecture Series, Organizer and Recitation Leader.	IAP 2015
18.085, Computational Science and Engineering, Course Instructor.	Summer 2013
18.095, Mathematics Lecture Series, Organizer and Recitation Leader.	IAP 2013
18.02, Multivariable Calculus, Teaching Assistant.	Fall 2012
18.085, Mathematical Methods for Engineering, Grading Assistant and	Spring 2012
responsible for Office Hours.	•
18.112, Complex Analysis, Grading Assistant and responsible for Office Hours.	Fall 2011
18.755, Lie Groups, Grading Assistant and responsible for Office Hours.	Fall 2011
Teaching as an undergraduate student in Italy	
Complex Analysis, Teaching Assistant, University of Rome 3.	Spring 2010
Calculus 1, Teaching Assistant, University of Rome 3.	Fall 2009
General topology, Teaching Assistant, University of Rome 3.	Spring 2009
General Mathematics for Biological Sciences, Teaching Assistant,	Fall 2008
University of Pavia.	1 an 2000
COUDENT SUBEDVISION	
STUDENT SUPERVISION	
Thesis supervision	
Linus Rösler, MA Thesis, "The geometry of elliptic fibrations", EPFL.	$02.2021 \hbox{-} 09.2021$
Anaëlle Pfister, BA project (equivalent to a bachelor's thesis),	02.2021 - 06.2021
"An introduction to toric geometry", EPFL.	
Luca Nyckess, BA project (equivalent to a bachelor's thesis),	$02.2020 \hbox{-} 06.2020$
"An introduction to complex manifolds and Hodge Theory", EPFL.	
Simen Moe, Part III essay (equivalent to a master's thesis),	12.2018-05.2019
"An introduction to the Minimal Model Program", University of Cambridge.	

Study projects supervision	
Alberto Smailovic Funcasta, BA one semester study project,	02.2022-06.2022
"Introduction to algebraic structures: from groups to modules", EPFL.	
Linus Rösler, MA project (one semester project),	09.2020-12.2020
"Elliptic surfaces in Algebraic Geometry", EPFL.	
Maxime Matthey, MA project (one semester project),	09.2020-12.2020
"Advanced topics in Commutative Algebra: Completions", EPFL.	
Gheehyun Nahm, Study project for an undergraduate student	08.2018-03.2019
on advanced topics in Algebraic Geometry, University of Cambridge.	
<b>Leon Zhang</b> , Direct Reading Program, Supervisor for an undergraduate student learning Hodge Theory, MIT.	IAP 2015
<b>Minseon Shin</b> , Direct Reading Program, Supervisor for an undergraduate student learning Scheme Theory, MIT.	IAP 2013
Thesis committee participation	
Peter Simko, "Fano varieties", Master thesis, EPFL.	07.2017
ORGANIZATION OF CONFERENCES, SEMINARS AND WORKSHO	PS
Conferences and workshops	
Foliations in Algebraic and Birational Geometry, 5 days workshop (team of 4),	09.2022
Bernoulli Center for Fundamental Studies, Lausanne, Switzerland.	
<b>Basel-Dijon-EPFL Workshop</b> , two-day workshop, (team of 2), Lausanne, Switzerland.	05.2022
Basel-Dijon-EPFL Workshop, two-day workshop, (team of 5), Basel, Switzerland.	11.2021
Basel-Dijon-EPFL Workshop, two-day workshop, (team of 4), Lausanne, Switzerland.	11.2019
Cambridge-Tokyo Algebraic Geometry Workshop, III, two-day workshop, (team of 4), Cambridge, UK.	12.2018
New advances in Fano manifolds, five-day school for Ph.D. students, (team of 4), Cambridge, UK.	12.2017
British Algebraic Geometry, three-day conference, (local organizer), Cambridge, UK,	09.2017
Cambridge-Tokyo Algebraic Geometry Workshop, II, two-day workshop, (team of 4), Cambridge, UK.	03.2017
MIT-RTG Mirror Symmetry Workshop, five-day workshop, (team of 6), Big Bear Lake	e, CA. 05.2013
Seminars	
Organizer for the Groups, Arithmetic & Algebraic Geometry Seminar, EPFL.	07.2019-present 10.2017-06.2019

# **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)
Mathematics Research Letter, Michigan Journal of Mathematics, International Mathematics
Research Notices (5 reports), Mathematische Annalen, Annali della Scuola Normale Superiore
di Pisa, Journal of Algebraic Geometry (3 reports), Inventiones Mathematicae, International
Journal of Mathematics, Manuscripta Mathematica, Advances in Mathematics (2 reports),
Transactions of the AMS (2 reports), Annales de l'Insitute Fourier, Journal of Differential
Geometry, Proceedings of the LMS (2 reports), Advances in geometry, Forum Math Pi, Journal
of the LMS, Electronic Research Archive, Mathematische Zeitschrift.

Referee for conference proceedings: (by conference title)

Since 2013

Since 2015

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 Engineering and Physical Sciences Research Council, UK (3 grants).

Since 09.2019

Reviewer for Zentralblatt and Mathscinet (7 reviews).

Since 2014

**Mentoring activity** 

**Mentor** for 1st year students of the Bachelor in Mathematics, Università degli Studi di Milano.

10.2022-present

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 Selection Committee for the Chair of Algebraic Geometry, EPFL.

02.2021 and 02.2022

 $\textbf{Doctoral students Selection Committee} \ \text{for the Chair of Algebraic Geometry, EPFL}.$ 

02.2022

Admission Selection Interviews, Churchill College, Cambridge.

12.2018

### **LANGUAGES**

Italian: mother tongue.

English: professional proficiency. French: intermediate level. German: beginner level.

Last update: October 10th, 2022

#### REFERENCES

# Professor James McKernan, FRS

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# Professor Jorge Vitório Pereira

Research reference Instituto Nacional de Matemática Pura e Aplicada Estrada Dona Castorina 110 22460-320 - Rio de Janeiro - Brasil +55 21 25295220 http://w3.impa.br/~jvp/ jvp@impa

### Professor Zsolt Patakfalvi

Research and teaching reference École polytechnique fédérale de Lausanne EPFL SB MATH CAG MA C3 635 (Bâtiment MA), Station 8 CH-1015 Lausanne, Switzerland +41 21 693 55 20 http://cag.epfl.ch/ zsolt.patakfalvi@epfl.ch