

# **Ugo Bruzzo**

## **CURRICULUM VITAE**

**(updated August 6, 2023)**

### **Personal data**

Born in Campomorone (Genoa province, Italy), 30 September 1955. Two children, Cristiano born 1983, and Valentina born 1985.

#### **Addresses:**

- SISSA, Via Bonomea 265, 34136 Trieste, Italy (office)
- Via dello Sterpeto 5, 34141 Trieste, Italy (personal)

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**Web page** <http://people.sissa.it/~bruzzo/>

#### **Present position and duties:**

- Professor of Geometry, International School for Advanced Studies, Trieste
- Coordinator of SISSA's PhD programme in Geometry and Mathematical Physics
- Member of PPGMAT (Programa de Pós-Graduação em Matemática), Universidade Federal da Paraíba, João Pessoa, Brazil
- National coordinator of research project (PRIN 2022) “Geometry of algebraic structures: moduli, invariants, deformations”

**Languages:** Italian (native), Genoese (native), English and Spanish (fluent), Portuguese (full professional proficiency) and French (basic).

### **Bibliometrics** (as of August 6, 2023)

Total citations (from Scopus): 850 (excludes books)<sup>1</sup>

Total citations (from Google Scholar): 2262, since 2018: 620

Total citations (from MathSciNet): 602<sup>1</sup>

h Index (Scopus) 14

h Index (Google Scholar): 24, since 2018: 12

i10 Index (Google Scholar): 60, since 2018: 19

### **Job history**

Nov 1979 to Sept 1982: Fellow of the Italian National Research Council (CNR)

Oct 1982 to Aug 1983: High school teacher (electronics)

Sept 1983 to Sept 1987: Assistant Professor, University of Genova

Oct 1987 to Oct 1994: Associate Professor, University of Genova

Nov 1994 to June 2002: Associate Professor at SISSA

July 2002 to present: Full Professor at SISSA

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<sup>1</sup>Main reason of the discrepancy: I have a few papers that have a good number of citations by physicists on journals not covered by MathSciNet

## Education & titles

Degree in Physics, 28 March 1979, University of Genova. Thesis work on canonical formalisms in general relativity. Advisor: Prof. E. Massa.

“Notório saber” granted by Universidade Federal da Paraíba (João Pessoa, Brazil) on 23 October 2018.<sup>2</sup>

## Publications

I have authored 3 monographs (in collaboration), about 114 research papers and 30 proceeding papers, mostly in collaboration (with about 50 coauthors). I have co-edited 4 conference proceedings, and written a number of lecture note sets and exercise books, made translations from/into English, etc. A full publication list is available separately.

## Grant history

- National research project (PRIN 2022) “Geometry of algebraic structures: moduli, invariants, deformations” ( $\sim \text{€}300,000$ ) 2022-2024.
- Bolsa de Produtividade em Pesquisa 1B, CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico, Brasil; 2020-2023; R\$ 2720  $\simeq \text{€}520$  per month).
- Italian-Spanish research projects “Azione integrata” (Years 1993-1994, 1999-2000, 2001-2003, 2006-2009).
- National research project “Geometry of differentiable manifolds” (1993-1996).
- National research project “Classification and properties of real and complex manifolds” (1997-1998).
- “Noncommutative geometry: algebraic, analytic and probabilistic aspects and applications in mathematical physics”, funded by the Friuli-Venezia Giulia region (1999-2001).
- National research project “Singularities, Integrability, Symmetries” (2000-2002).
- “Geometry of moduli spaces and applications in mathematical physics”, funded by the Friuli-Venezia Giulia region (2002-2004).
- National research project “Geometry of algebraic varieties” and “Birational geometry and moduli spaces” (2002-2004, 2010-2012, 2013-2016, 2016-2019, 2017-2021).
- EINSTEIN Consortium project “Duality in integrable systems” (2008-2009).
- MATPYL (Mathématiques en Pays de Loire) project “Lie algebroids, equivariant cohomology, and topological quantum field and string theories” (2008-2009).
- “Nuevas tendencias en Geometría Algebraica Derivada y Espacios de Módules con una mirada a la Teoría de Cuerdas”, Junta de Castilla y León, Spain (2008-2011).
- INFN Research Project “Nonperturbative dynamics of gauge theories” (2005-2014; coordinator of the Trieste Unit, 2005-2011).
- INFN Research Project “Gauge and string theory” (2014–)
- EINSTEIN Consortium project “Integrability in topological string and field theory” (2009-2010).
- GEANPYL-II Angers-SISSA project “Generalized Lie algebroid structures” (2010–2012).

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<sup>2</sup> “Notório saber” is a title granted by federal Brazilian universities which attests that the subject, in spite of not having a formally recognized PhD title, has equivalent knowledge and expertise, as testified by her/his publication record, career and professional experience.

## Past administrative work

- Director, Institute for Geometry and Physics (IGAP), Trieste (2018-2023).
- Head of the Area of Mathematics of SISSA (12 April 2012 to 31 January 2015 — equivalent to Head of Department).
- Head of the SISSA Mathematical Physics Sector (May 24, 2011 - April 11, 2012).
- Deputy head of the Mathematical Physics Sector, SISSA (1998–2001).
- Member of the Executive Committee of the Department of Mathematics of the University of Genova (1985-87 and 1989-91).
- Coordinator of several research projects, funded by the Italian Ministry for University or the Trieste regional administration (see “Grant history” below).
- Coordinator of joint Italian-Spanish research projects (“Azioni Integrate” — 1993-1994, 1999-2000, 2001-2003, 2007-2009).
- SISSA Director’s delegate for international relations (Oct. 2002 – Dic. 2007).
- Coordinator of the SISSA-University of Trieste Mathematics M.Sc. course (2005–2007, 2016–2021).
- Coordinator of the Trieste unit of the research project “Nonperturbative gauge dynamics” of the Italian Institute for Nuclear Physics (2005–2011).

## Editorial activity

- Advisory Editor of the Journal of Geometry and Physics, Elsevier (Jan 2018–).
- Editor in Chief of the Journal of Geometry and Physics, Elsevier (Nov. 2003–Dec. 2017).
- Associate Editor of “São Paulo Journal of Mathematical Sciences” (since May 2018).
- Editorial Board of “Analysis, Geometry and Number Theory” (founding editor).
- Editorial Board of “Rendiconti dell’Istituto Matematico dell’Università di Trieste” (since 2008).
- Editorial Board of “Latin American Mathematics Series: UFSCAR Subseries,” Springer-Verlag (since 2013)
- Reviewer/referee for Mathematical Reviews, Zentralblatt für Mathematik, Adv. Appl. Clifford Alg., Adv. Math. Physics., Adv. Math., Adv. Theor. Math. Phys., Ann. Global Anal. Geom., Ann. Inst. Fourier, Ann. Mat. Pura Appl., Bull. Austral. Math. Soc., Calculus of Variations, Classical and Quantum Gravity, Collec. Math., Complex Manifolds, Compositio Mathematica, Documenta Mathematica, European J. of Mathematics, International Journal of Mathematics and Mathematical Sciences, Indian J. of Math., International Mathematical Research Notices, Journal of Algebra, Journal of Differential Equations, Journal de École Polytechnique, Journal of Geometry and Physics, Journal of High Energy Physics, Journal of Mathematical Physics, Journal of Physics A: Mathematical and General, Letters in Mathematical Physics, Mathematische Nachrichten, Math. Phys. Anal. Geom., Mem. Amer. Math. Soc., Nuovo Cimento, Pacific Journal of Mathematics, Pure Applied Math. Quart., Rendiconti dell’Istituto Matematico dell’Università di Trieste, Rivista Matematica dell’Università di Parma, Selecta Mathematica, SIGMA, Trans. Amer. Math. Soc.

## Memberships

- (past) Scientific council of the Arnold-Regge Institute, Torino (2017-2021)
- European Research Group “Vector Bundles on Algebraic Curves” (member of the scientific committee)
- (past) “More Geometrico” project (member of the scientific committee)
- National Group for Geometry and Algebra, Istituto Nazionale di Alta Matematica

- Società Italiana di Relatività Generale e Gravitazione (SIGRAV) (life member, past member of the scientific committee)
- Unione Matematica Italiana (until 2017)
- INFN — Istituto Nazionale di Fisica Nucleare (INFN)

## Visits

- Sept – Oct 1977: “Student Fellowship”, Max-Planck-Institut für Strömungsforschung, Göttingen, Germany.
- May – Jun 1984: “Visiting Fellowship”, Princeton University.
- Apr 1986, May – Jun 1989, May 1990, Jun – Jul 1999: Visiting scientist, University of Salamanca, Spain
- Sep 1990: Visiting Associate Professor, Baruch College, City University of New York.
- Oct 1994, Aug – Oct 1998: Visiting Associate Professor, Victoria University of Wellington, New Zealand.
- Dec 2000: Visiting “Maître de conférences”, Laboratoire de Physique Théorique des Hautes Energies, Université Paris VII.
- Feb – Apr 2006: Visiting Professor, Tata Institute for Fundamental Research, Mumbai, India.
- Jan – May 2008, May 2016, Jan – May 2017: Senior Visiting Professor, University of Pennsylvania, Philadelphia.
- June 2009, Oct 2013, July 2018, Feb – March 2019: Visiting Professor, Université de Lille.
- May – Aug 2010: Chercheur associé, CNRS, Université des Sciences et Technologies de Lille.
- Sep – Dec 2010: Distinguished Visiting Professor, University of Pennsylvania, Philadelphia.
- Jan - Feb 2011: Institut des Hautes Études Scientifiques, Paris.
- March - April 2011, March 2012, Nov 2013: Max-Planck-Institut für Mathematik, Bonn.
- May - June 2011: Isaac Newton Institute, Cambridge, UK.
- Feb 2015 - Jan 2016: Visiting Professor, Universidade Federal de Santa Catarina, Florianópolis, Brazil.
- June 2016: Visiting Professor, Université Paris VI.
- Feb – April 2018: Visiting Professor, Universidade de São Paulo, Brazil (FAPESP grant).
- May 2019 – Apr 2023: Senior Visiting Professor, Department of Mathematics, Universidade Federal da Paraíba (UFPB), João Pessoa, Brazil.

Moreover I made short visits at Centro de Recerca Matemàtica (Bellaterra, Spain), CIMAT (Guana-juato, Mexico), Florida State University (Tallahassee), Gannon University (Erie, USA), Heriot-Watt University (Edinburgh), Hong Kong University of Science and Technology, Humboldt Universität Berlin, IMPA (Rio de Janeiro), Institute for Mathematical Sciences (National University of Singapore), Instituto Superior Técnico (Lisbon), King’s College University of London, Nankai University (Tianjin, China), Penn State University (State College, PA), Rudjer Boskovic Institute of the University of Zagreb (Croatia), Rutgers University (Piscataway, USA), Tsinghua University (Beijing), Ukrainian Academy of Sciences (Kyiv), Universidad Autonoma de Madrid, Universidad de Barcelona, Universidade de São Paulo, São Paulo (Brazil), Universidade de São Paulo, São Carlos (Brazil), Universidade Estadual de Campinas (Brazil), Universidade Estadual de Londrina (Brazil), Universidade Federal da Paraíba (João Pessoa, Brazil), Universidade Federal de Santa Catarina (Florianópolis, Brazil), Universidade Federal Fluminense (Rio de Janeiro, Brazil), Universität Kaiserslautern (Germany), Université d’Angers (France), Université Paris VI, University of Adelaide (Australia), University of Alberta (Edmonton, Canada), University of Edinburgh, University of Georgia (Athens, USA), University of Hong Kong, University of Lisbon, University of Ottawa (Canada), University of Oxford, University of Pennsylvania (Philadelphia, USA), University of Queensland in Brisbane (Australia), University of Western Ontario (London, Canada), University of Wisconsin at Madison.

In Italy I gave talks at the Universities of Pavia, Roma “La Sapienza”, Bologna, Roma “Tor Vergata”, Napoli, Milano Bicocca, Torino, Padova, Trieste, Firenze, Lecce, Scuola Normale Superiore (Pisa), Università del Piemonte Orientale (Alessandria), Udine, Roma 3.

In February 2004 I spent two weeks at “Mathematische Förschungsinstitut Oberwolfach” (Germany) as a “Research in pairs” fellow.

## Teaching and supervising

- Problem solving classes in general physics, classical mechanics, partial differential equations (University of Genoa, 1979-1992).
- Undergraduate/master courses in calculus, PDEs, mathematical physics (analytical mechanics, continuum mechanics, electromagnetism, quantum mechanics, special and general relativity), differential geometry (including Lie groups), symplectic geometry, algebraic topology, algebraic geometry. Delivered at the Universities of Genoa, Trieste and Padova, at SISSA, at ICTP, at Universidade Federal de Santa Catarina (Florianópolis, Brazil), and at the University of Pennsylvania.
- PhD courses in: sheaf theory, homological algebra, algebraic topology, algebraic geometry, toric geometry, Hodge theory, Teichmüller theory, elliptic curves, fibre bundles, instantons, Lie algebroids. Delivered at SISSA, University of Genoa, University of Bologna, Universidade de São Paulo, Universidade Federal da Paraíba (João Pessoa, Brazil).
- In 2015 I coordinated a two-semester seminar on stacks at Universidade Federal de Santa Catarina, Florianópolis, Brazil, giving most talks.

## Supervising

- I have supervised or am supervising 33 PhD students (SISSA, University of Genoa, Universidade Federal da Paraíba).
- I have supervised 33 students for their “laurea” or MSc in mathematics or physics (University of Genoa, SISSA, University of Trieste) or for the final thesis of the Diploma Course of the International Centre for Theoretical Physics in Trieste.

## PhD theses in mathematics advised/current PhD students:

1. C. Bartocci, Elementi di una teoria globale delle supervarietà (Università di Genova, 1990). Presently Associate Professor at the University of Genoa, Italy.
2. F. Thompson, New approaches to quaternionic algebra and geometry (SISSA, 1999). Presently CEO, Dragonfly Science, Wellington, New Zealand.
3. G. Marelli, A Fourier transform for sheaves on Lagrangian families of real tori (SISSA, 2001). Presently Associate Professor, University of Namibia, Windhoek.
4. A. Tacca, Heisenberg-Clifford super algebras and moduli spaces of instantons (University of Genova, 2005). Presently Head of Pricing and Financial Valuation, Banca Popolare di Milano.
5. E. Macrì, Stability conditions in derived categories (SISSA, 2006). Presently Professor, Université Paris-Saclay.
6. A. Ricco, Some comments on the local curve (B-side) (SISSA, 2006, with L. Bonora). High school teacher, Rome.
7. L. Cirio, Symmetries of noncommutative spaces and equivariant cohomology (with G. Landi, SISSA, 2008). Last known job: Researcher at Westfälische Wilhelms-Universität Münster, Germany.
8. F. Ferrari Ruffino, Topics on topology and D-branes (SISSA, with L. Bonora, 22 October 2009). Presently Associate Professor, Universidade Federal de São Carlos, São Carlos, Brazil.

9. A. A. Henni, Monads and coherent sheaves on blowups of the projective plane (SISSA, 27 November 2009). Presently Assistant Professor at Universidade Federal de Santa Catarina, Florianópolis, Brazil.
10. F. Sala, Some topics in the geometry of framed sheaves and their moduli spaces (SISSA, with D. Markushevich, 6 October 2011). Associate Professor, Università di Pisa.
11. P. Tortella,  $\Lambda$ -modules and holomorphic Lie algebroids (SISSA, with D. Markushevich, 6 October 2011). Lead Data Scientist, Wallabies, Milan.
12. C. Rava, ADHM data for framed sheaves on Hirzebruch surfaces (SISSA, 27 February 2012, with C. Bartocci). Banca Intesa, Torino, Italy.
13. S. Holguín Cardona, Approximate Hermitian-Yang-Mills structures and semistability for Higgs bundles (SISSA, 3 May 2012). Research Scientist at the University of Oaxaca, Mexico.
14. G. Abdellaoui, Topology of moduli spaces of framed sheaves (SISSA, 27 September 2013). Data Scientist at Price Forbes, London.
15. A. Lo Giudice, Some topics on Higgs bundles over projective varieties and their moduli spaces (SISSA, 27 September 2013). UniCredit Business Integrated Solutions, Milan, Italy.
16. A. Pustetto, Semistability and decorated bundles (SISSA, 27 September 2013). Presently working as a programmer, Trieste area.
17. M. Pedrini, Moduli spaces of framed sheaves on stacky ALE spaces, deformed partition functions and the AGT conjecture (SISSA, 11 October 2013, with F. Sala). Data Scientist at CGnal, Milan.
18. G. Sanna (SISSA, September 2014, with A. Kuznetsov), Rational curves and instantons on the Fano threefold  $Y_5$ . Works in Data Science.
19. T. Matteini (SISSA, September 2014, with D. Markushevich), Holomorphically symplectic varieties with Prym Lagrangian fibrations. Risk analyst at Le Generali (insurance company, Trieste).
20. A. Gandolfo, The outset of connections (Univ. of Genoa, 24 February 2016, with C. Bartocci). High school teacher.
21. P. Coronica, September 2015 (SISSA, with D. Markushevich), Semistable vector bundles on bubble tree surfaces. Assicurazioni Generali, Trieste.
22. J. Scalise (SISSA, 19 September 2016). Framed symplectic sheaves on surfaces and ADHM data. High School Teacher, London.
23. A. Celotto (SISSA, 25 June 2017). Topology of the moduli space of framed sheaves on ALE orbifolds. Job unkown.
24. A. Maiorana (SISSA, 14 September 2018). Moduli of sheaves, quiver moduli, and stability. Working at “Bending Spoons,” Milan.
25. F. Sorrentino (SISSA, 31 January 2019). On numerically flat Higgs bundles. High school teacher, location unkown.
26. W. Montoya (SISSA, 27 September 2019). Noether-Lefschetz theory for toric varieties. Postdoc at Universidade Estadual de Campinas, Brazil.
27. V. Peragine (SISSA, 18 December 2020). Semistable Higgs bundles on elliptic surfaces. Occupation unknown.
28. M. Graffeo, (SISSA, 25 November 2022). Zero-dimensional sheaves, group actions and blowups. Postdoc, Politecnico di Milano.
29. U. Shahzad, (SISSA, 27 March 2023). Ricci-flat metrics on canonical bundles. Occupation unknown.
30. I. J. Serna Giraldo (Universidade Federal da Paraíba, PhD expected August 2023). Topic: Wall-crossing for G-constellations and Fourier-Mukai transform.
31. W. Cattani (SISSA, PhD expected September 2023). Topic: Exceptional collections on isotropic Grassmannians.
32. P. Henrique Santos (Universidade Federal da Paraíba, PhD expected March 2024). Topic: Nested Hilbert schemes on Hirzebruch surfaces as quiver varieties.

33. F. Arceu Ferreira (Universidade Federal da Paraíba, PhD expected February 2025). Topic: Toric geometry of crepant resolutions of singularities.

#### **Supervision of MSc theses in Mathematics at SISSA/University of Trieste**

1. P. Tortella, October 2008. Homology of moduli space of instantons on the projective plane.
2. F. Sala, October 2008. Moduli of framed sheaves and Heisenberg algebras.
3. R. Lena, September 2010. Positivity and Higgs bundles.
4. M. Pedrini, September 2010. Principal bundles and numerical effectiveness.
5. B. Kenda, December 2012. Moduli Spaces of Framed Sheaves on Hirzebruch Surfaces.
6. V. Cambò, October 2013. Some properties of semistable Higgs bundles on projective varieties.
7. E. Saini, October 2013. Approximate Hermitian-Yang-Mills structures on semistable Higgs bundles.
8. D. Alboresi, July 2014. Extensions of Courant algebroids and related structures.
9. A. Capasso, October 2014. On stability of principal bundles over Riemann surfaces.
10. I. Cicchese, December 2014. Local systems, Higgs bundles and representations of fundamental groups
11. R. Gay, September 2018. Semistable Higgs bundles on projective and Kählerian varieties.
12. W. Cattani, June 2019. Resolution of a nonabelian quotient singularities in dimension three with McKay correspondence.

#### **Supervision of MSc in Theoretical Physics at University of Trieste**

1. M. Del Zotto, May 2009. Instanton moduli spaces and topological field theories.

#### **Supervision of theses for the ICTP Diploma Course in Mathematics**

1. I. Akdeniczi, August 1995. Vector bundles and differential forms on manifolds.
2. N. Ahmad, August 2003. Localization formula in equivariant cohomology.

#### **MSc in Physics at University of Genoa**

1. A. Gandolfo (1994) La trasformata di Fourier-Mukai per istantoni periodici in  $\mathbb{R}^4$ .
2. E. Raineri (1998) Geometria di varietà mirror nella compattificazione di teorie di stringa.
3. G. Sanguinetti (1998) Simmetria mirror per teorie di stringa compattificate su superfici K3.
4. A. Parodi (1999) Geometria torica e compattificazione di teorie di stringa.
5. G. Berretta (2002) Trasformata d Fourier-Mukai e simmetria mirror per Calabi-Yau fibrati in K3.
6. L. Cirio (2003) Coomologia equivariante e teorie di super Yang-Mills.
7. P. Rossi (2004) Coomologia equivariante degli algebroidi di Lie e teorie super Yang-Mills.

#### **Supervision of MSc in Mathematics at University of Genoa**

1. C. Pedemonte (1988) Effetti dissipativi nella meccanica dei continui in relatività generale.
2. A. Canessa (1991) Determinazione di discontinuità dei parametri materiali di mezzi continui mediante tecniche di scattering inverso.
3. F. Pioli (1993) Asintotica del calore e topologia delle varietà.
4. A. Ribodetti (1993) L'approssimazione ad alte frequenze per lo scattering inverso nei continui viscoelastici.
5. A. R. Tofani (1993) L'approssimazione di Kirchhoff per lo scattering inverso nella regione della alte frequenze.
6. L. Blasi (1993) Positività dell'energia del campo gravitazionale.

7. C. Carlini (1994) Approssimazione di Kirchhoff nella diffusione da parte di superfici ruvide.
8. F. Venzano (1994) Soluzioni delle condizioni di gauge di Nester.
9. S. Pezzali (1995) Termini di secondo ordine nello scattering inverso nei mezzi viscoelastici.

### **Supervision of MSc in Mathematics at Universidade Federal da Paraíba, João Pessoa, Brazil**

1. F. Arceu Ferreira (2021) Uma introdução aos quocientes para ações de grupos algébricos.
2. C. Edilon Ferreira da Silva (2021) Ações de grupos algébricos afins.

### **Prizes and honors won by former students**

Emanuele Macrì is an invited speaker at the 2022 International Congress of Mathematicians. He was a recipient of a “Poincaré Chair” at Institut Henri Poincaré, Paris.

Guido Sanguinetti and Elia Saini won the “Premio Franco Tricerri” of the Italian Mathematical Union for the best MSc thesis in differential geometry, in the years 1999 and 2015, respectively. E. Saini also won “Premio Schena” (Fondazione Credito Valtellinese).

### **Postdoc coordination**

- R. Torres Ruiz (2014-2018, SISSA Excellence Research Grant)
- A. Boralevi (2014-2016, SISSA Postdoctoral fellow)
- A. Rizzato (Sept 2012 – Sept 2014; Oct 2015 – Sept 2016, SISSA Postdoctoral fellow)
- S. Gammelsgaard (Oct 2022 – ; SISSA Mathematical Fellowship)

### **Organization of conferences**

I have organized (or participated in the scientific committees of) 30+ international conferences.

In particular since 1996 I am the main organizer of the series “Schools and Workshops on Algebraic Geometry and Physics,” that have taken place in Trieste (4 times), Medina del Campo (Spain), Marseille, Genova, Como, Salamanca, Lisbon, Philadelphia, Vienna, Seoul (Korea), Tianjin (China, twice), Hangzhou (China), Maresias (Brazil), Saint Jean de Monts (France), Leiden (The Netherlands), Guanajuato (Mexico).

I am a member of the Scientific Committees of the interdisciplinary project “More Geometrico” and of the VBAC (Vector Bundles on Algebraic Curves) conference series.

### **Talks and participation in conferences**

I have given about 90 talks in different universities and research institutions. Moreover I have participated in about 210 conferences, giving about 100 talks (mostly invited) and lectures series. I have given 10 talks to high school students, high school teachers or general audiences.

### **Other activities**

- National committee for the hiring of Associate Professors in Mathematical Physics (1992).
- National committee for the awarding of PhDs in mathematics (1993-1997).
- Several hiring committees (commissioni di concorso) at different levels (SISSA).
- PhD defence committees in Salamanca (three times), Rome (twice), Milano, Genova (twice), Instituto Superior Técnico (Lisbon), Universidade Federal de Londrina (Paraná, Brazil), Universidade Federal de São Carlos (São Carlos, Brazil), and many times at SISSA.
- Advisory board of “SUPERSYMMETRY 2000 – Encyclopedic Dictionary” (Jim Gates chief editor).

- Chair of a committee for the awarding of high school degrees, Liceo Scientifico Enrico Fermi, Genova (twice).
- Referee for National Research Projects applications (PRIN).
- Evaluator for CIVR (Comitato di Indirizzo per la Valutazione della Ricerca), Ministero dell’Università e della Ricerca Scientifica.
- Committee for the conferment of an Habilitation degree at Humboldt Universität, Berlin.
- Referee for Volkswagen Stiftung grants (three times) and member of the midterm evaluation board for one of them (2011).
- Committees for the awarding of the “Agregação” degree, Instituto Superior Técnico, Lisbon (2009).
- Committee for the awarding of a full professorship at Instituto Superior Técnico, Lisbon (2011).
- Referee for the Portuguese Exact Sciences and Engineering Council (2012).
- Referee for the Romanian Agency for Higher Education, Research, Development and Innovation Funding (2012).
- Referee for FONDECYT (Chile, 2014, 2018 and 2022).
- Referee for ANVUR (Agenzia nazionale di valutazione del sistema universitario e della ricerca, 2012-3, 2021-2022).
- Member of the External Advisory Committee of LISMATH — Lisbon Mathematics PhD programme (2013–).
- Evaluator for INdAM COFUND-2012.
- Committee for a “Maître de conferences” position, Université d’Angers (2016).
- Committee for the awarding of a Tenure Track assistant professorship (Università Statale di Milano, 2017).
- “Comitato di Indirizzo” for the Mathematics Programme of the University of Trieste (2018–)
- Member of committees for “Livre-Docência”, Universidade de São Paulo (2018, 2020).
- Member of a committee for granting tenure, Università di Padova (2019).
- CONACYT External Evaluation Committee of Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico (2021–).