

Riccardo Moschetti

Curriculum vitae

 sites.google.com/site/moschettiriccardo



Personal data

Full name Riccardo Moschetti
Year of birth 1987
Nationality Italian

In possesso dell'Abilitazione scientifica Nazionale come professore universitario di Seconda Fascia nel Settore Concorsuale 01/A2 - GEOMETRIA E ALGEBRA. Valida dal 02/10/2022 al 02/10/2033

Positions

July 2021 - current RtdA at the University of Turin, Italy
March 2020 - July 2021 Postdoc at the University of Pavia, Italy
January 2019 - December 2019 Postdoc at the University of Pavia, Italy
September 2015 - December 2018 Postdoc at the University of Stavanger, Norway
September 2017 - March 2018 Visiting position at the Università Statale di Milano, Italy
September 2016 - December 2016 Visiting position at the Max-Planck institute of Bonn, Germany

Research interests

- Derived categories of coherent sheaves and Fourier-Mukai functors. Problems concerning Azumaya algebra and twisted derived categories in particular in the context of cubic hypersurfaces. Stability conditions on triangulated categories.
- K3 surfaces and Enriques surfaces, from the lattice theoretical point of view and derived categories.
- Monodromy of projective varieties, Hurwitz moduli spaces, enumerative problems on Hurwitz spaces and Donaldson-Thomas invariants.

Publication list and Preprints

In preparation	<i>Projective models of fixed degree of Brandhorst and Shimada families of Enriques surfaces</i> , Riccardo MOSCHETTI, Franco ROTA, Luca SCHAFFLER
In preparation	<i>Conic linear series</i> , Riccardo MOSCHETTI, Gian Pietro PIROLA and Lidia STOPPINO
Preprint	<i>Pencils of plane cubics with one base point</i> , Riccardo MOSCHETTI, Gian Pietro PIROLA and Lidia STOPPINO arXiv:2407.04569
Preprint	<i>The motive of the Hilbert scheme of points in all dimensions</i> , Michele GRAFFEO, Sergej MONAVARI, Riccardo MOSCHETTI, Andrea RICOLFI arXiv:2406.14321
May 2024	<i>The non-degeneracy invariant for $(\tau, \bar{\tau})$-generic Enriques surfaces</i> , Riccardo MOSCHETTI, Franco ROTA, Luca SCHAFFLER arXiv: 2309.14981 - Accepted on Documenta Mathematica
December 2023	<i>Fullness of the Kuznetsov-Polishchuk exceptional collection for the spinor tenfold</i> , Riccardo MOSCHETTI and Marco RAMPAZZO Algebras and Representation Theory - 10.1007/s10468-023-10246-6
November 2022	<i>$\mathbb{Z}/r\mathbb{Z}$-equivariant covers of P^1 with moving ramification</i> , Carl LIAN and Riccardo MOSCHETTI Israel Journal of Mathematics - 10.1007/s11856-022-2387-2
August 2022	<i>A computational view on the non-degeneracy invariant for Enriques surfaces</i> , Riccardo MOSCHETTI, Franco ROTA, Luca SCHAFFLER Experimental Mathematics - 10.1080/10586458.2022.2113576
May 2022	<i>Hyperelliptic odd coverings</i> , Riccardo MOSCHETTI, Gian Pietro PIROLA Israel Journal of Mathematics - 10.1007/s11856-022-2318-2
February 2022	<i>A note on non-uniform points for projections of hypersurfaces</i> , Maria Gioia CIFANI, Riccardo MOSCHETTI Annali dell'Università di Ferrara - 10.1007/s11565-022-00390-0
June 2021	<i>Alternating Catalan numbers and curves with triple ramification</i> , Gavril FARKAS, Riccardo MOSCHETTI, Juan Carlos NARANJO and Gian Pietro PIROLA Annali della Scuola Normale Superiore di Pisa - 10.2422/2036-2145.201909_009
June 2021	<i>Monodromy group of projections of hypersurfaces</i> , Maria Gioia CIFANI, Alice CUZZUCOLI, Riccardo MOSCHETTI Annali di Matematica Pura e Applicata - 10.1007/s10231-021-01132-3
September 2020	<i>Equivalence of K3 surfaces from Verra threefolds</i> , Grzegorz KAPUSTKA, Michał KAPUSTKA and Riccardo MOSCHETTI Kyoto Journal of Mathematics - 10.1215/21562261-2019-0059
December 2018	<i>The derived category of a non generic cubic fourfold containing a plane</i> , Riccardo MOSCHETTI

December 2018	Mathematical Research Letters 25 (2018) - 10.4310/MRL.2018.v25.n5.a8 <i>On coherent sheaves of small length on the affine plane</i> , Riccardo MOSCHETTI and Andrea RICOLFI
April 2017	Journal of Algebra 516 (2018) - 10.1016/j.jalgebra.2018.09.028 <i>Non Uniform Projections of Surfaces in \mathbb{P}^3</i> , Alice CUZZUCOLI, Riccardo MOSCHETTI and Maiko SERIZAWA
February 2017	Le matematiche LXXII (2017) - 10.4418/2017.72.2.8 <i>Hurwitz spaces and liftings to the Valentiner group</i> , Riccardo MOSCHETTI and Gian Pietro PIROLA
September 2015	Journal of Pure and Applied Algebra (2017) - 10.1016/j.jpaa.2017.03.002 <i>Fourier-Mukai functors and perfect complexes on dual numbers</i> , Francesco AMODEO and Riccardo MOSCHETTI
December 2014	J. Algebra 437 (2015) - 10.1016/j.jalgebra.2015.04.020 <i>Fourier-Mukai functors and applications to quadric fibrations</i> (Ph. D. thesis), Riccardo MOSCHETTI sites.google.com/site/moschettiriccardo/Moschetti_PhDThesis.pdf

Organized conferences

December 2023	<i>Workshop on Numerical Invariants of Enriques Surfaces, Turin</i> Organizer
April 2022	<i>Workshop Derived categories and Grothendieck ring: a gathering, Turin</i> Organizer
September 2021	<i>Workshop GTM 2021, Some Topics in Commutative Algebra and Algebraic Geometry, Turin</i> Part of the local organizing committee
April 2018	<i>Workshop: Sheaves, Curves and Moduli, Stavanger</i> Part of the local organizing committee
September 2015	<i>Workshop: Derived Categories and Moduli Spaces, Stavanger</i> Part of the local organizing committee

Funding

February 2023	Principal investigator for the project “ <i>Numerical invariants of nodal Enriques surfaces</i> ”, Funded by Indam - GNSAGA
January 2023	Member of the project PRIN 2022, <i>Moduli spaces and birational geometry</i>
July 2022	Principal investigator for the project “ <i>Algebra, geometria, logica, didattica</i> ”, Fondi ricerca locale linea B, University of Turin
April 2022	Funded by Indam - GNSAGA for the workshop <i>Derived categories and Grothendieck ring: a gathering</i>

January 2023	Member of the project PRIN 2022, <i>Moduli spaces and birational geometry</i>
September 2015	Member of the project <i>Coherent sheaves on abelian varieties: moduli, derived categories and stability conditions</i> , funded by the Research Council of Norway under grant 230986, at the University of Stavanger

Selected talks

February 2024	<i>Hyperelliptic Odd Coverings</i> , Algebraic Geometry Seminar, SISSA, Trieste
June 2023	<i>The non-degeneracy invariant of Enriques surfaces</i> , Algebraic Geometry Genova-Nice-Torino meeting, Genova, Italy
May 2023	<i>The non-degeneracy invariant of Enriques surfaces</i> , Refined invariants in Moduli Theory, SISSA, Italy
February 2023	<i>Enumerative problems on Hurwitz spaces</i> , Algebraic Geometry in Pavia, University of Pavia, Italy
January 2023	<i>Hyperelliptic Odd Coverings</i> , University of Bologna, Italy
October 2021	<i>Hyperelliptic Odd Coverings (and more)</i> , GTM Workshop at the University of Turin, Italy
December 2020	<i>Hyperelliptic Odd Coverings</i> , University of Pavia, Italy
May 2019	<i>Monodromy of projections of hypersurface</i> , University of Bergen, Norway
June 2018	<i>Equivalence of K3 surfaces from Verra threefolds</i> , Joint Algebraic and Differential Encounters, University of Milan Bicocca, Italy
May 2018	<i>On coherent sheaves of small length on the affine planes</i> , Students seminar, University of Warwick, England
May 2018	<i>Equivalence of K3 surfaces from Verra threefolds</i> , Research Group: Motives of Calabi-Yau manifolds, Krakow
May 2018	<i>Equivalence of K3 surfaces from Verra threefolds</i> , HU University of Berlin, Germany
February 2018	<i>On coherent sheaves of small length on the affine plane</i> , University of Milan
November 2017	<i>Some application of focal loci</i> , University of Pavia, Italy
December 2016	<i>Twisted derived categories in the case of cubic fourfolds containing a plane</i> , Seminari di Natale 2016, University of Milan, Italy
November 2016	<i>The derived category of a cubic fourfold containing a plane</i> , University of Bergen
November 2016	<i>Space of non uniform points of projections</i> , Nasjonalt algebramøte 2016, University of Oslo, Norway
July 2016	<i>Hurwitz spaces and liftings to the Valentiner group</i> , weekly seminars, University of Pavia
May 2016	<i>La categoria derivata di un cubic fourfold contenente un piano</i> , Giornate di Geometria Algebrica ed Argomenti Correlati XIII, University of Catania, Italy
March 2016	<i>Derived category of a non generic cubic fourfolds containing a plane</i> , The Stavanger Algebraic Geometry Seminar, University of Stavanger

September 2015	<i>The scheme of dual numbers and the description of its derived category</i> , Friday Colloquium in Mathematics and Physics, University of Stavanger
June 2015	<i>Fourier-Mukai functors and indecomposable complexes on dual numbers</i> , GAEL 2015, Leuven
March 2015	<i>Fourier-Mukai functors and perfect complexes on dual numbers</i> , Algebraic Geometry Seminar, University of Warsaw
November 2014	<i>Working seminar of University of Milano</i> , Department of Mathematics F.Enriques, University of Milan.
December 2013	<i>Fourier-Mukai functors and perfect complexes on dual numbers</i> , part 2. Department of Mathematics F.Enriques, University of Milan.

Teaching activity

2024	Teacher for the PhD course "Topics in algebraic geometry" University of Turin PhD program
2022 - current	Teacher for "Geometria" University of Turin, Department of Physics, Course of Ottica e Optometria
2021 - current	Exercise sessions for "Geometria B" (Linear algebra and Geometry) University of Turin, Department of Mathematics
2021 - 2021	Teacher for the PhD course "Inequalities between invariants of varieties" Joint PhD Program in Mathematics Milano Bicocca - Pavia -INdAM
2020 - 2021	Teacher for "Istituzioni di algebra", Master degree University of Pavia, Department of Mathematics
2019 - 2020	Exercise sessions for "Geometria e Algebra", Bachelor degree University of Pavia, Faculty of Engineering
2016 - 2017	Teacher for "Abstract algebra", Bachelor and Master degree University of Stavanger, Faculty of Science and Technology
2012 - 2014	Exercise sessions for "Matematica" (General mathematics), Bachelor degree University of Pavia, Faculty of Science
2012 - 2014	Tutor for "Geometria e Algebra" (Linear algebra and Geometry), Bachelor degree University of Pavia, Faculty of Engineering
2009 - 2011	Tutor for "Geometria I" (Linear algebra and Geometry), Bachelor degree University of Milan, Department of Mathematics

Students and Theses

July 2023	Bachelor thesis <i>Singular Homology and Topological Investigations</i> , Fabrizio Fodde, University of Turin
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Education

March 2022 Course Quality teaching in presence and at a distance, evaluation and inclusion
- <https://best.it/badge/show/1894>

October 2011 - PhD in Mathematics at University of Pavia
December 2014

Date of defence 10/12/2014

Place of defence Università degli Studi di Pavia

Thesis title Fourier-Mukai functors and applications to quadric fibrations

Advisors Alberto Canonaco and Paolo Stellari

October 2009 - Master degree in Mathematics at University of Milan
June 2011

Thesis title Categorie derivate e geometria dei fourfolds cubici

Advisors Paolo Stellari

Grade 110/110 cum laude

October 2006 - Bachelor degree in Mathematics at University of Milan
October 2009

Thesis title Orientazioni di una varietà topologica e dualità di Poincaré

Advisors Cristina Turrini

Grade 110/110 cum laude

Languages

English Fluent - C1 level

Italian Mother tongue

German Basic Knowledge - A2 level

Other activities, outreach

2016 - current Reviewer for AMS-math: www.ams.org/mr-database

2012 - current Reviewer for Zentralblatt-math: www.zbmath.org

2012 - current Member of GNSAGA (Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni) of INDAM (Istituto Nazionale di Alta Matematica, i.e., National Institute of High Mathematics).

2018 - current Member of UMI (Unione Matematica Italiana).

2012 - current Member of "Curvilinea": an organization for the popularization of mathematics: www.curvilinea.org

I organized various projects concerning the popularization of mathematics, in particular with students of the exhibition of "Mathematics of Planet Earth 2013" in Paris, "Rette... Rotonde?!" in Pavia in which was exhibited the original model of the Pseudosphere of Beltrami, and it has been now given the honourable mention in the "Premio Guido Castelnuovo 2017" from Unione Matematica Italiana, and finally the honourable mention of the project "Fly faster? Fly shorter!" in the competition "Mathematics of Planet Earth 2017".

2010 - 2015 Collaboration with the inter-university research center for communication and informal learning in mathematics "Matematita", providing images and videos: www.matematita.it/materiale

I helped with the organization of different exhibitions, such as MateInItaly, in Milano Triennale. I designed some digital videos to visualize the geometry of abstract constructions. Here I improved my skill of computer programming with different languages, as C, javascript, python, matlab and php.

2010 - 2015 Collaboration with the magazine "XlaTangente" (both on-paper and online release): www.xlatangente.it

Dati personali

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

Albuzzano, 10/07/2024