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## Experience

2023–2026 Postdoctoral Researcher, University of Bonn & Max Planck Institute for Mathematics, Bonn

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## Education

2019–2023 Ph.D. in Mathematics — Université Paris-Saclay & Università di Roma “Tor Vergata”.

Thesis: *Stable sheaves on Hyper-Kähler manifolds*

Advisors: Emanuele Macrì and Antonio Rapagnetta.

2017–2019 M.Sc. in Mathematics, Sapienza University of Rome

2014–2017 B.Sc. in Mathematics, Sapienza University of Rome

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## Publications

Derived categories of Fano varieties of lines (arXiv:2501.03534)

O’Grady’s tenfolds from stable bundles on hyper-Kähler fourfolds (arXiv:2411.18528)

A modular construction of OG10, *Oberwolfach Reports* (2025).

Towards a modular construction of OG10, *Compositio Mathematica* (2024)

The Looijenga–Lunts–Verbitsky algebra and Verbitsky’s Theorem, *Milan Journal of Mathematics* (2022)

Stable sheaves on K3 surfaces via wall-crossing, *Kyoto Journal of Mathematics* (2024)

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## Research Seminars

*Moduli of sheaves on hyper-Kähler manifolds*, Algebraic Geometry seminar at the University of Bielefeld, 2025

*Moduli of sheaves on hyper-Kähler manifolds*, Oberseminar (colloquium-style talk for a general audience) at the Max Planck Institute, Bonn 2025

*Moduli spaces of sheaves on hyper-Kähler manifolds*, Algebraic Geometry seminar at the University of Glasgow, 2025

*A modular construction of OG10*, HK days in Sheffield, 2025

*The derived category of the surface of lines on a cubic fourfold*, Hyperkähler varieties and related topics II – Roma 2024

*The derived category of the surface of lines on a cubic fourfold*, Hyperkähler varieties and related topics II – Roma 2024

*A modular construction of OG10*, Oberwolfach 2024

*A modular construction of OG10*, Seminario di Algebra e Geometria – Università di Genova, Genova 2024

*Towards a modular construction of OG10*, Algebraic geometry seminar – Columbia University, New York 2024

*Una costruzione modulare di OG10*, Giornate di Geometria Algebrica e Argomenti Correlati XVI – Cetraro 2023

*Towards a modular construction of OG10*, MAGIC seminar – Imperial College, London 2023

*Towards a modular construction of OG10*, HyperK “Topics in hyperkähler geometry” January 2023 special event – Jussieu, Paris 2023

*Towards a modular construction of OG10*, Seminari di Natale – Università La Statale, Milano 2022

*Moduli spaces of stable sheaves via wall-crossing*, Algebraic geometry seminar – University of Lille 2022

*Moduli spaces of stable sheaves on K3 surfaces via wall-crossing*, Algebraic geometry seminar – University of Rome “Roma Tre” 2021

*Moduli spaces of stable sheaves on K3 surfaces via wall-crossing*, Moduli spaces and hyper-Kähler varieties in Rome – University of Rome “La Sapienza” 2021

*Moduli spaces of stable sheaves on K3 surfaces via wall-crossing*, KCL/UCL Junior Geometry Seminar – online seminar 2021

*The Looijenga–Lunts algebra and Verbitsky’s theorem*, Joint working group Bonn-Paris: “Topics in hyperkähler geometry” – online seminar 2021

*A new proof of Yoshioka’s Theorem on moduli spaces of sheaves*, Algebraic geometry seminar – University of Milan 2021

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## Working Seminars

*The period-index problem for abelian threefolds*, in the reading seminar ‘Brauer groups and the period-index problem’ – Bonn 2025

*The semiregularity map for twisted sheaves*, in the seminar ‘The Hodge Conjecture for Abelian Fourfolds, after Markman’ – Paris 2025

*Characteristic cycles and the monodromy of the Gauss map*, in the seminar ‘Arithmetic finiteness of very irregular varieties’ – Bonn 2025

*Odaka’s Theorems*, Lecture for the reading course ‘K-stability’ – Bonn 2024

*Sheaves on hyper-Kähler manifolds*, Phd course at Università La Statale, Milano 2024  
*Sheaves on HKs and deformation theory*, Minicourse during the JTP ‘Derived categories, Hodge theory and Chow groups’ – HIM, Bonn 2023  
*Examples of atomic bundles*, Exercise session – Summer School in Algebraic Geometry: Derived Categories, Stability Conditions, and Moduli Spaces – Haifa 2023  
*Derived categories of hyper-Kähler manifolds*, Junior Geometry Seminar – Imperial College, London 2023  
*Derived categories of hyper-Kähler manifolds*, Junior talk at: Hyperkähler varieties and related topics – Sapienza, Rome 2022  
*Deformations of affine symplectic varieties*, Lecture for the reading course ‘Dualité symplectique’ – Orsay 2022  
*Vector bundles on hyper-Kähler varieties*, HyperK ‘Topics in hyperkähler geometry’ – Jussieu, Paris 2022  
Three lectures for the reading course *Reading course on stability conditions* at University of Rome ‘La Sapienza’ 2019  
*Kan extensions and derived functors*, Junior seminars of Algebra, Geometry and Categories – University of Rome ‘La Sapienza’ 2017

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## Teaching

*Sheaves on hyper-Kähler manifolds*, PhD course at University of Rome Tor Vergata, Rome 2024  
*Sheaves on hyper-Kähler manifolds*, PhD course at the University of Milan “Statale”, Milan 2024  
*Sheaves on HKs and deformation theory*, Minicourse during the JTP ‘Derived categories, Hodge theory and Chow groups’ - HIM, Bonn 2023

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## Academic visits

Università di Roma Tor Vergata, Roma, 6–10 May 2024. Hosted by Antonio Rapagnetta.  
Columbia University, New York, 18–22 March 2024. Hosted by Giulia Saccà.  
Università La Statale, Milano, 5–9 February 2024. Hosted by Paolo Stellari.  
Imperial College, London, 6–10 February 2023. Hosted by Richard Thomas.  
MPI Leipzig, 17–26 August 2022. Hosted by Angel Rios Ortiz.

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## Honours & Awards

Fellowship from the Hausdorff Institute for Mathematics in Bonn  
INdAM Fellowship for research (2017)<sup>1</sup>  
“Excellent Graduate” Prize, Sapienza University of Rome (2017)  
Bronze medal at the national mathematical Olympiads 2014.

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<sup>1</sup>Nation-wide competition for master students. Eight people are awarded the scholarship.