

Annamaria Ortu

Curriculum Vitae

Last update:
November 8, 2024

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Position

November 2023 - present **Postdoctoral researcher**, *University of Gothenburg, Sweden*.
January - March 2022 **Visiting PhD student**, *University of Cambridge and Gonville & Caius College*.
Funded by Ruadhaí Dervan's Royal Society University Research Fellowship.

Education

September 2023 **Ph.D. in Geometry and Mathematical Physics**, *cum laude*, SISSA Scuola Internazionale di Studi Superiori Avanzati, Trieste.
Thesis title: "The geometry of holomorphic submersions, their deformations and moduli".
Supervisors: Ruadhaí Dervan and Jacopo Stoppa. Available on [Iris](#).
September 2019 **Master degree in Mathematics**, *cum laude*, Università degli Studi di Trieste, joint programme "Percorso formativo comune" with SISSA.
Thesis title: "The constant scalar curvature equation on Kähler toric surfaces". Supervisor: Jacopo Stoppa.
July 2017 **Bachelor degree in Mathematics**, Università degli Studi di Milano Statale.

Publications and Preprints

Preprints

Moment maps and stability of holomorphic submersions, 2024.
ArXiv preprint: [2407.03246](#)
Constant scalar curvature Kähler metrics and semistable vector bundles, with *Lars Martin Sektnan*, 2024.
ArXiv preprint: [2406.08284](#)
The analytic moduli space of holomorphic submersions, 2023.
ArXiv preprint: [2306.09137](#)

Published articles

Optimal symplectic connections and deformations of holomorphic submersions, *Advances in Mathematics*, Vol 414, 2023.
<https://doi.org/10.1016/j.aim.2023.108868>

Invited Talks and Academic Visits

Spring 2024 I participated in the thematic programme "*New equivariant methods in algebraic and differential geometry*", *Isaac Newton Institute, Cambridge*.

Talks at Conferences

- September 2024 Workshop “*Special Geometric Structures and Analysis*”, within the programme “*Special Geometric Structures and Analysis*”.
SLMath-MSRI, Berkeley, California
- July 2024 *BRIDGES International Conference*.
Institut d’Études Scientifiques, Cargese, Corsica
- May 2024 Conference “*K-stability and moment maps*”, within the programme “*New equivariant methods in algebraic and differential geometry*”.
Isaac Newton Institute, Cambridge, UK
- March 2024 Conference “*Asymptotic Methods in Complex Geometry*” in memory of Steve Zelditch.
Northwestern University, Illinois
- August 2023 Conference “*Analytic Methods in Complex Geometry*”.
University of Münster, Germany
- June 2023 Summer school “*Recent advances in Kähler geometry*”.
Le Croisic, France
- April 2023 Conference “*Around Complex Geometry*”.
University of Illinois Chicago, Illinois
- April 2023 AMS Eastern Spring Sectional Meeting, special session “*Recent advances in differential geometry*”.
Online
- September 2022 Conference “*Complex Analysis and Complex Geometry*”.
Levico, Italy
- June 2022 Conference “*Kähler and non-Kähler geometry: new developments and interactions*”.
Aarhus Institute of Advanced Studies, Denmark
- June 2022 Workshop “*MARGE - Young researchers in Kähler and Hermitian geometry*”.
Université de Montpellier, France
- December 2021 Conference “*EDGE Days 2021: Explicit K-stability and moduli problems*”.
University of Edinburgh, UK

Seminars

- October 2024 Jagiellonian University, Krakow, *Geometry and Topology Seminar*.
- September 2024 Indian Institute of Science, *Geometry and Topology Seminar*, online.
- February 2024 University of Nottingham, *Algebraic Geometry Seminar*, online.
- October 2023 Università di Parma, *Mathematics Seminar*.
- April 2023 UQÀM, Montréal, *Kähler Geometry Seminar*.
- March 2023 University of Glasgow, *Algebraic Geometry Seminar*.
- March 2023 Università degli studi di Firenze, *Geometry Seminar*.
- October 2022 Purdue University, *Geometric Analysis Seminar*.
- October 2022 University of Illinois, Chicago, *Geometry and Topology Seminar*.
- April 2022 Chalmers University, Gothenburg, *KASS Seminar*.
- February 2022 University of Cambridge, *Algebraic Geometry Seminar*.

Talks at Junior Events

- May 2022 Summer school “GAEL XXIX - Géométrie Algébrique en Liberté”.
Université Paris-Saclay. Contributed Talk
- February 2022 University of Cambridge, *Junior Geometry Seminar*.
- February 2022 King’s College, London, *KCL/UCL Junior Geometry Seminar*.
- December 2021 Conference “*PhD Days 2021*”.
Università degli studi di Milano Statale

Grant

- 2024 GNSAGA - INdAM travel grant to visit Gábor Székelyhidi at Northwestern University.

Activities I co-organised

- 2024 **Complex geometry seminar**, within the programme “*New equivariant methods in algebraic and differential geometry*”.
Isaac Newton Institute, Cambridge
- 2023 **SISSA Junior Geometry and Mathematical Physics Seminar**.
- 2021 **SISSA Junior Math Days**.
- 2021-2022 **Graduate Interuniversity Math Seminar**, *online*.

Teaching

- 2023 TA for the master course Differential Geometry held at SISSA by Prof. Jacopo Stoppa.
- 2018 TA for the undergraduate course Geometria 3A (differential geometry of curves and surfaces) held at the University of Trieste by Prof. Mattia Mecchia, *20 hours*.

Service

- 2022 - present Member of European Women in Mathematics.
- 2020 - present Member of the INdAM group GNSAGA (Geometry group within the Italian Institute of Mathematics).

Outreach

- May 2023 **Speaker at the event “Matematici al Lavoro”** organised by the University of Trieste to present possible career paths to undergraduate students in Mathematics.
- 2020-2023 **Volunteer in the “SISSA for School” programme** run by SISSA Medialab to promote science and research among teenagers and children.