

Annamaria Ortu

Curriculum Vitae

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Position

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

Education

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

Publications and Preprints

Preprints

Moment maps and stability of holomorphic submersions, 2024.
ArXiv preprint: [2407.03246](https://arxiv.org/abs/2407.03246)

Constant scalar curvature Kähler metrics and semistable vector bundles, with Lars Martin Sektnan, 2024.
ArXiv preprint: [2406.08284](https://arxiv.org/abs/2406.08284)

The analytic moduli space of holomorphic submersions, 2023.
ArXiv preprint: [2306.09137](https://arxiv.org/abs/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

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

Talks at Conferences

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

Seminars

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

Chalmers University, Gothenburg, <i>KASS Seminar</i> .	April 2022
University of Cambridge, <i>Algebraic Geometry Seminar</i> .	February 2022
<i>Talks at Junior Events</i>	
Summer school “ <i>GAEL XXIX - Géométrie Algébrique en Liberté</i> ”.	May 2022
Université Paris-Saclay. Contributed Talk	
University of Cambridge, <i>Junior Geometry Seminar</i> .	February 2022
King’s College, London, <i>KCL/UCL Junior Geometry Seminar</i> .	February 2022
Conference “ <i>PhD Days 2021</i> ”.	December 2021
Università degli studi di Milano Statale	

Grants and Projects

GNSAGA - INdAM travel grant to visit Gábor Székelyhidi at Northwestern University, *March 2024*, 1000€.

Participant to the PRIN Project “Moduli Theory and Birational Classification” 2017SSNZAW_005, *PRIN 2017*, Principal Investigator: Ugo Bruzzo.

Activities I co-organised

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

Teaching

Lecturer for the PhD/Master’s course Algebraic Topology, University of Gothenburg and Chalmers University, <i>with Lars Martin Sektnan</i> .	2025
46 hours	
TA for the Master course Differential Geometry held at SISSA by Prof. Jacopo Stoppa.	2023
TA for the undergraduate course Geometria 3A (differential geometry of curves and surfaces) held at the University of Trieste by Prof. Mattia Mecchia.	2018
20 hours	

Membership

Member of European Women in Mathematics.

Member of the INdAM group GNSAGA (Geometry group within the Italian Institute of Mathematics).

Service and Outreach

Speaker and panelist at “SISSA Women in Mathematics”, a one-day event with a focus on the gender gap in academia. **April 2025**

Speaker at the event “Matematici al Lavoro” organised by the University of Trieste to present possible career paths to undergraduate students in Mathematics. **May 2023**

Volunteer in the “SISSA for School” programme run by SISSA Medialab to promote science and research among teenagers and children. **2020-2023**