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 & January - March 2022 Caius College.

Funded by Ruadhaí Dervan's Royal Society University Research Fellowship.

Education

Ph.D. in Geometry and Mathematical Physics, SISSA Scuola September 2023 Internazionale di Studi Superiori Avanzati, Trieste, cum laude.

Thesis title: "The geometry of holomorphic submersions, their deformations and moduli". Supervisors: Ruadhaí Dervan and Jacopo Stoppa. Available on Iris.

Master degree in Mathematics, Università degli Studi di Trieste, joint September 2019 programme "Percorso formativo comune" with SISSA, cum laude.

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

 ${\bf Constant\ scalar\ curvature\ K\"{a}hler\ metrics\ and\ semistable\ vector\ bundles},\ {\it with\ Lars}$

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

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

Talks at Conferences

Gothenburg-Aarhus Joint Workshop. June 2025

Gothenburg, Sweden

Conference "GLEN". December 2024

Glasgow, UK

Workshop "Kähler and non-Archimedean geometry". November 2024

Lyon, France

Workshop "Special Geometric Structures and Analysis", within the programme September 2024 "Special Geometric Structures and Analysis".

SLMath-MSRI, Berkeley, California

BRIDGES International Conference.

July 2024

Institut d'Études Scientifiques, Cargese, Corsica

Conference "K-stability and moment maps", within the programme "New equivariant May 2024 methods in algebraic and differential geometry".

Isaac Newton Institute, Cambridge, UK

Conference "Asymptotic Methods in Complex Geometry" in memory of Steve Zelditch. March 2024 Nothwestern University, Illinois

Conference "Analytic Methods in Complex Geometry". August 2023

University of Münster, Germany

Summer school "Recent advances in Kähler geometry". June 2023

Le Croisic, France

Conference "Around Complex Geometry".

Purdue University, Geometric Analysis Seminar.

April 2023

October 2022

University of Illinois Chicago, Illinois

AMS Eastern Spring Sectional Meeting, special session "Recent advances in differential April 2023 geometry".

Online

Conference "Complex Analysis and Complex Geometry". September 2022

Levico, Italy

Conference "Kähler and non-Kähler geometry: new developments and interactions". **June 2022** Aarhus Institute of Advanced Studies, Denmark

Workshop "MARGE - Young researchers in Kähler and Hermitian geometry". **June 2022** Université de Montpellier, France

Conference "EDGE Days 2021: Explicit K-stability and moduli problems". December 2021 University of Edinburgh, UK

Seminars

Jagiellonian University, Krakow, Geometry and Topology Seminar.	October 2024
Indian Institute of Science, Geometry and Topology Seminar, online.	September 2024
University of Nottingham, Algebraic Geometry Seminar, online.	February 2024
Università di Parma, Mathematics Seminar.	October 2023
UQÀM, Montréal, Kähler Geometry Seminar.	April 2023
University of Glasgow, Algebraic Geometry Seminar.	March 2023
Università degli studi di Firenze, Geometry Seminar.	March 2023

University of Illinois, Chicago, Geometry and Topology Seminar.

Chalmers University, Gothenburg, KASS Seminar.

University of Cambridge, Algebraic Geometry Seminar.

Coctober 2022

April 2022

February 2022

Talks at Junior Events

Summer school "GAEL XXIX - Géométrie Algébrique en Liberté". May 2022

Université Paris-Saclay. Contributed Talk

University of Cambridge, Junior Geometry Seminar. February 2022

King's College, London, KCL/UCL Junior Geometry Seminar. February 2022

Conference "PhD Days 2021". 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, within the programme "New equivariant methods in algebraic 2024 and differential geometry".

Isaac Newton Institute, Cambridge

SISSA Junior Geometry and Mathematical Physics Seminar. 2023

SISSA Junior Math Days. 2021

Graduate Interuniversity Math Seminar, online. 2021-2022

Teaching

Lecturer for the PhD/Master's course Algebraic Topology, University of Gothenburg and Chalmers University, with Lars Martin Sektnan.

48 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) 2018 held at the University of Trieste by Prof. Mattia Mecchia.

20 hours

Membership

Member of European Women in Mathematics.

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

Outreach

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

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

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