GIULIA CAVALLERI

PERSONAL INFORMATION

Place and Date of Birth J Email g

Citizenship Italian

January 16 1997, Bergamo (Italy) giulia.cavalleri01@universitadipavia.it

CURRENT POSITION

Ph.D. student in Mathematical Analysis

2022 - Today

University of Pavia

Joint Ph.D. Program between University of Pavia, University of Milano-Bicocca and INdAM. Supervisors: Prof. Pierluigi Colli, Prof. Elisabetta Rocca.

Interests: Nonlinear evolution equations for tumor growth models.

EDUCATION

Postgraduate Course

2022

University of Modena and Reggio Emilia

School in AI: Deep Learning, Vision and Language for Industry - Second Edition.

Master Degree in Mathematics

2019 - 2021

University of Milano-Bicocca

Title of the thesis: "Unique Continuation Principles at the Boundary".

Supervisor: Prof. Veronica Felli. Grade: 110/110 cum Laude.

Bachelor's Degree in Mathematics

2016 - 2019

University of Milano-Bicocca

Title of the thesis: "The Classical Müntz-Szász Theorem and the One on the Unit Disc".

Supervisor: Prof. Stefano Meda. Grade: 110/110 cum Laude.

High school 2011 - 2016

 $Liceo\ scientifico\ Filippo\ Lussana\ (Bergamo)$

Grade: 99/100.

TEACHING EXPERIENCE

Univeristy of Pavia

- Coordination of the tutoring activities associated with the course "Analisi Matematica I", degree course in Ingegneria Civile e Ambientale and Ingegneria Edile e Architettura (2023-24).
- Seminar lectures for "Elementi di Matematica", degree course in Scienze e tecnologie per l'ambiente e la natura (2022-23, 2023-24), 12 hours.

University of Milano-Bicocca

- Peer tutoring for students with disabilities and with S.L.D. for "Algebra Lineare e Geometria" (2019-20), "Analisi Matematica I" (2020-21), support in the writing of the bachelor thesis in Mathematical Analysis (2022-23).
- Tutoring activities for "Analisi Matematica I", degree course in Scienze Statistiche ed Economiche (2020-21, 16 hours) and in Matematica (2020-21, 60 hours).
- Tutoring activity for the project "Piano lauree scientifiche riduzione tassi di abbandono" for "Analisi Matematica I", degree course in Statistica e Scienze delle Informazioni and in Scienze Statistiche ed Economiche (2019-20, 2020-21).

PREPRINT

• Giulia Cavalleri, A phase field model of Cahn–Hilliard type for tumour growth with mechanical effects and damage.

CONFERENCES, WORKSHOPS AND SCHOOLS

- The 14th AIMS Conference on Dynamical Systems and Differential Equations. NYU Abu Dhabi (UAE), December 16-20, 2024. **Invited speaker**.
- o Norman working group of Mathematical Biology LMAH (Le Havre Normandie) & LMRS (Rouen Normandie) Session 8. Le Havre (France), November 28-29, 2024. Invited speaker.
- Italian-Japanese Workshop on Variational Perspectives for PDEs. University of Pavia (Italy), September 09-13, 2024. **Poster presentation**.
- Diffuse Interface methods in Continuum Mechanics: analysis, singular limits, and algorithms. Cetraro (Italy), July 08-12, 2024. **Poster presentation**.
- 41th Congress of the French Theoretical Biology Society. University of Poitiers (France), June 24-27, 2024. **Invited speaker**.
- From Cells to Tissues: Models, Analysis and Applications. Como (Italy), June 10-14, 2024. Contributed talk.
- o Lions-Magenes Days 2024. University of Pavia (Italy), May 21-22, 2024. **Poster presentation**.
- The Cahn-Hilliard equation recent advances and new challenges. Chęciny, (Poland), April 21-26, 2024. Contributed talk.
- o Cahn-Hilliard and Allen-Cahn Equations in Bio-medicine. Politecnico di Milano (Italy), February 22, 2024. Participant.

- o Boundary value problems and applications The legacy of Enrico Magenes. University of Pavia (Italy), November 21, 2023. Participant.
- o XI Giornata di Studio Politecnico di Milano Università di Pavia "Equazioni Differenziali e Calcolo delle Variazioni". Politecnico di Milano (Italy), October 26, 2023. Participant.
- CIRM conference "Variational and Geometric Structures for Evolution". Levico Terme (Italy), October 8-13, 2023. Participant.
- Hausdorff School "Analysis of PDEs: Variational and Geometric Perspectives". University of Bonn and Hausdorff School for Advanced Studies in Mathematics (Germany), July 10-14, 2023. Selected participant.