Edoardo Giovanni Tolotti

PhD Student in Mathematics

Università di Pavia

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Education

Università di Pavia *Pavia, Italy*

Ph.D. in Mathematics *2022 - Present*

- Advisor: Professor Maria Giovanna Mora
- Main research topics: Dimension reduction, Γ-Convergence, Nonlinear Elasticity, Nonlocal energies, Free boundary problems.
- Visiting: During my Ph.D. I had the pleasure to visit for three months prof. Lucia Scardia at Heriot-Watt University, Edinburgh.

Università di Pavia *Pavia, Italy*

Master degree in Mathematics *2020 - 2022*

- Advisor: Professor Maria Giovanna Mora
- Thesis: On a strain gradient plasticity model accounting for the Burgers vector and plastic spin
- Grade: 110L/110

Università di Pavia *Pavia, Italy*

Bachelor degree in Mathematics *2017 - 2020*

- Advisor: Professor Stefano Gualandi
- Thesis: Algoritmi per il trasporto ottimo semidiscreto e stampa 3D
- Grade: 110L/110

Publications

Preprints

E. Maggiorelli, F. Riva, E.G. Tolotti. 2025. A free boundary approach to the quasistatic evolution of debonding models. arXiv:2503.17023 [math.AP].

E.G. Tolotti. 2025. On the hierarchy of plate models for a singularly perturbed multi-well nonlinear elastic energy. arXiv:2501.11443 [math.AP], (accepted: Journal of Nonlinear Science).

E.G. Tolotti. 2024. Stability of the Von Kármán regime for thin plates under Neumann boundary conditions. arXiv:2409.01748 [math.AP], (submitted).

Awards, Fellowships, & Grants

2020 - 2022 **Merit scolarship**, Università di Pavia *€ 12,000*

2024 **Student Paper Competition Finalist**, The 14th AIMS conference, Abu Dhabi.

Talks and posters

XXXIV Convegno Nazionale di Calcolo delle Variazioni, Riccione (IT), February 10-14, 2025, **contributed talk**: *Stability of the Von Kármán regime for thin plates under Neumann boundary conditions*.

The 14th AIMS Conference on Dynamical Systems and Differential Equations, Abu Dhabi (UAE), December 16-20, 2024, **invited speaker**: *Stability of the Von Kármán regime for thin plates under Neumann boundary conditions*.

Heriot-Watt Analysis Seminar, Edinburgh (UK), October 2, 2024, **invited speaker**: *Stability of the Von Kármán regime for thin plates under Neumann boundary conditions*.

Italian-Japanese Workshop on Variational Perspectives for PDEs, Pavia (IT), September 9-13, 2024, **poster presentation**: *Stability of the Von Kármán regime for thin plates under Neumann boundary conditions*.

Diffuse Interface Methods in Continuum Mechanics: Analysis, Singular Limits, and Alghoritms, Cetraro (IT), July 8-12, 2024, **poster presentation**: *Stability of the Von Kármán regime for thin plates under Neumann boundary conditions*.

Lions-Magenes Days 2024, Pavia (IT), May 21-22, 2024, **poster presentation**: *On the hierarchy of plate models for a singularly perturbed multi-well nonlinear elastic energy*.

Variational and Geometric Structures for Evolution, Levico Terme (IT), October 8-13, 2023, **contributed talk**: *On the hierarchy of plate models for a singularly perturbed multi-well nonlinear elastic energy*.

Hausdorff School Analysis of PDEs: Variational and Geometric perspectives, Bonn (GE), July 10-14, 2023, **poster presentation**: *On the hierarchy of plate models for a singularly perturbed multi-well nonlinear elastic energy*.

Teaching Experience

Spring 2024	**Ingegneria elettronica e informatica - Analisi matematica 2**, Teaching Assistant	*Università di Pavia*
Summer 2023	**Finance - Real Analysis**, Precourse	*Università di Pavia*
Spring 2023	**Bioingegneria - Analisi matematica 2**, Teaching Assistant	*Università di Pavia*
Spring 2023	**Ingegneria elettronica e informatica - Analisi matematica 2**, Teaching Assistant	*Università di Pavia*

Miscellanea

References contacts

- Prof. Maria Giovanna Mora: mariagiovanna.mora@unipv.it
- Prof. Lucia Scardia: L.Scardia@hw.ac.uk

Languages

- Italian: Mother tongue
- English: C1 level (self-evaluated)
- German: A1 level (self-evaluated)

Programming skills

- Python3
- Matlab
- LaTeX