

# Chiara Bernardini

## Curriculum Vitae

Department of Mathematics  
University of Padua  
Via Trieste 63, Padova 35121, Italy  
✉ [chiara.bernardini@math.unipd.it](mailto:chiara.bernardini@math.unipd.it)



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### Personal information

First name Chiara  
Last name Bernardini  
Place and date of birth Urbino (Italy), February 11, 1995  
Nationality Italian  
Position PhD student  
Affiliation Department of Mathematics “Tullio Levi-Civita”, Univeristy of Padua  
E-mail [chiara.bernardini@math.unipd.it](mailto:chiara.bernardini@math.unipd.it)

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### Education

October 2020-ongoing **PhD student in Mathematics**, University of Padua, Italy  
September 25, 2020 **Master Degree in Mathematics**, University of Bologna, Italy  
Thesis: *An  $h$ -principle result for curves with constant curvature in  $\mathbb{R}^n$*   
Supervisor: Professor Alberto Parmeggiani  
Graduated with honors (110/110 magna cum laude) - GPA: 29.6 out of 30  
June 29, 2018 **Bachelor of Science in Mathematics**, University of Bologna, Italy  
Thesis: *The Faà di Bruno's Formula*  
Supervisor: Professor Giovanni Dore  
Graduated with honors (110/110 magna cum laude) - GPA: 29.1 out of 30

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### Research topics

Nonlinear PDEs, Calculus of Variations, Variational techniques, Mean-Field Games, Conformal geometry

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### Publications and preprint

1. Bernardini C.: *Existence and Compactness of Conformal Metrics on the Plane with Unbounded and Sign-Changing Gaussian Curvature*, Vietnam J. Math. (2021) doi:[10.1007/s10013-021-00540-5](https://doi.org/10.1007/s10013-021-00540-5)
2. Bernardini C.: *Existence and asymptotic behavior of non-normal conformal metrics on  $\mathbb{R}^4$  with sign-changing  $Q$ -curvature*, Commun. Contemp. Math. (2022) doi:[10.1142/S0219199722500535](https://doi.org/10.1142/S0219199722500535) (preprint ArXiv: [2112.10848](https://arxiv.org/abs/2112.10848))

3. Bernardini C., Vespri V., Zaccaron M.: *A note on Campanato's  $L^p$ -regularity of solutions of elliptic equations with continuous coefficients*, (2022) submitted
4. Bernardini C., Cesaroni A. : *Ergodic Mean-Field Games with aggregation of Choquard-type*, (2022) submitted (preprint ArXiv: [2208.08177](https://arxiv.org/abs/2208.08177))

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## Teaching activities

- November 2021 - June 2022 **Teaching assistant**, *Analisi Matematica II (Calculus II)*, Bachelor degree in Mathematics, University of Bologna. Weekly exercises (40 hours)
- October 2019 - May 2020 **Teaching support activity**, *Analisi Matematica II (Calculus II)*, Bachelor degree in Mathematics, University of Bologna. Weekly exercises (25 hours)

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## Scholarships

- 2015 Scholarship for students enrolled in the academic year 2014/2015 to study courses in subject areas of particular national interest
- October 2020 - ongoing PhD Fellowship from University of Padua

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## Talks

- October 7, 2022 Contributed talk at **10th Workshop of the GAMM Activity Group “Analysis of Partial Differential Equations”**, ISTA Austria.  
Title: Ergodic Mean-Field Games with aggregation of Choquard-type.

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## Poster sessions

- August 11, 2022 **Event: Hausdorff School - Geometric Analysis and Nonlinear Partial Differential Equations**  
**Place:** Hausdorff Center for Mathematics, Bonn (Germany)  
**Poster title:** Stationary Mean-Field Games with Riesz-type aggregation

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## Schools and Conferences attended

- December 16-18, 2019 **Junior Math Days**, SISSA Trieste (with SISSA travel grant for Master students)
- January 2020 **Winter School on Integrable Systems and Representation Theory**, University of Bologna
- June 21-25, 2021 **Calculus of Variations and PDEs: recent developments and future directions**, ETH Zürich (attended online)
- September 16-18, 2021 **Recent Progress in Geometric Analysis and PDEs**, University of Bologna
- November 29 – December 3, 2021 **Winter school: Analytical Methods in Quantum and Continuum Mechanics**, Polytechnic University of Turin (with Polito travel grant)
- May 9–13, 2022. **XXXI Convegno Nazionale di Calcolo delle Variazioni**, Levico Terme, Trento
- May 23–27, 2022 **Conference 100 UMI - 800 UniPD**, University of Padua
- June 6-7, 2022 **Nonlinear meeting in Bologna**, University of Bologna

June 27 - **Summer school - Geometric and analytic aspects of functional variational principles**, Cetraro, Cosenza (with CIME travel grant)  
July 1, 2022

August 8-12, 2022 **Hausdorff School - Geometric Analysis and Nonlinear Partial Differential Equations**, Hausdorff Center for Mathematics, Bonn (with Hausdorff Center's travel grant)

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## Languages

Italian	Mother tongue
English	Intermediate B2

Padova, October 29, 2022