

CURRICULUM VITAE

CAMILLO DE LELLIS

School of Mathematics
Institute for Advanced Study
1 Einstein Drive
Princeton, New Jersey
08540 USA

Phone: +1 609 734 8117

Email: camillo.delellis@math.ias.edu

Born in San Benedetto del Tronto (AP), June 11, 1976; Italian and Swiss Citizen; married with 3 children

Education

- Fall 1995. Student at the Scuola Normale Superiore di Pisa and at the University of Pisa.
- Summer 1999. Laurea in mathematics summa cum laude, University of Pisa.
- Fall 1999. PhD student at the Scuola Normale Superiore di Pisa.
- Fall 2000. Diploma in mathematics summa cum laude, Scuola Normale Superiore di Pisa.
- Fall 2002. Ph.D. in mathematics summa cum laude, Scuola Normale Superiore di Pisa.

Academic Positions

- Fall 2002. PostDoc, Max Planck Institute for Mathematics in the Sciences, Leipzig.
- Fall 2003. Postdoc, ETH Zürich.
- Spring 2004. Assistant Professor, University of Zürich.
- July 2005. Full Professor, University of Zürich.
- July 2018. Professor, Institute for Advanced Study, Princeton.
- June 2019. IBM von Neumann Professor, Institute for Advanced Study, Princeton.

Honors

- Sciarra Prize for Laurea theses in mathematics, 2000.
- Stampacchia Medal, 2009.
- Invited speaker at Hyderabad, ICM 2010.
- Plenary speaker at the European Congress of Mathematicians, Krakow, 2012.
- SIAG/APDE Prize, 2013, joint with László Székelyhidi
- Fermat Prize, 2013, joint with Martin Hairer
- Caccioppoli Prize, 2014

- Amerio Prize, 2015
- Member of the Academia Aeuropa
- Bôcher Prize, 2020, joint with Larry Guth and Laure Saint-Raymond
- Member of the German Academy of Sciences Leopoldina
- Feltrinelli prize, 2020
- Maryam Mirzakhani prize, 2021
- Plenary speaker at the International Congress of Mathematics, 2022
- Member of the American Academy of Arts and Sciences

Editorship

Current: Annali della Scuola Normaler Superiore, Encyclopedia of Mathematics, Journal of Differential Geometry, Springer Unitext.

Past

- Inventiones Mathematicae, managing editor
- Annals of Partial Differential Equations, Archive for Rational Mechanics and Analysis, Calculus of Variations and Partial Differential Equations, Communications in Mathematical Physics, Journal of Functional Analysis, Springer Lecture Notes in Mathematics.

Supervised PhD Dissertations

1. Gianluca Crippa, The flow associated to weakly differentiable vector fields, 2008 (cosupervised together with Luigi Ambrosio).
2. Emanuele Spadaro, Q -valued functions revisited, 2010.
3. Filippo Pellandini, Min-max constructions of 2-d minimal surfaces, 2010.
4. Roger Robyr, SBV regularity and Hamilton-Jacobi equations, 2010.
5. Dominik Tasnady, Min-max constructions of minimal surfaces in Riemannian manifolds, 2011.
6. Daniel Perez, On nearly umbilical surfaces, 2011.
7. Elisabetta Chiodaroli, Non-standard solutions of the isentropic systems of gas dynamics, 2013.
8. Jonas Hirsch, Report on my research on some regularity questions regarding multiple valued functions, 2014.
9. Luca Spolaor, Regularity theory for a class of 2-dimensional almost area minimizing currents, 2015.
10. Jusuf Ramic, Min-max constructions for minimal hypersurfaces with boundary, 2016.
11. Antonio De Rosa, Anisotropic energies in geometric measure theory, 2017 (cosupervised together with Guido de Philippis).

12. Salvatore Stuvard, Geometric variational problems on spaces of multiple valued functions, 2017.
13. Dominik Inauen, Rigidity and flexibility of isometric embeddings, 2019.
14. Stefano Gioffré, Quantitative rigidity theorems in differential geometry, 2019.
15. Riccardo Tione, Vectorial problems in the calculus of variations and fluid dynamics, 2020.
16. Luigi De Rosa, Non-smooth solutions in incompressible fluid dynamics, 2021 (cosupervised with Maria Colombo).
17. Simone Steinbrüchel, Boundary regularity for the Plateau problem, 2022.
18. Vikram Giri, Intermittent Euler flows satisfying the local energy inequality, 2023.
19. Reinaldo Resende, Some results in geometric measure theory, 2023.
20. Michele Gorini, Non-uniqueness of Leray-Hopf weak solutions to the fractional Navier-Stokes equations, 2023.
21. Anna Skorobogatova, Interior regularity for area-minimizing currents, 2024.
22. Francesco Deangelis, Boundary regularity for the Mumford-Shah functional with Dirichlet boundary conditions, 2024.

Selected publications

- [1] DE LELLIS, C., OTTO, M., WESTDICKENBERG, M. Structure of entropy solutions for multidimensional scalar conservation laws *Arch. Ration. Mech. Anal.*, 170 (2003), no. 2, 137–184.
- [2] DE LELLIS, C., Blowup of the BV norm in the multidimensional Keyfitz and Kranzer system. *Duke Math. J.*, 127 (2005), no. 2, 313–339.
- [3] DE LELLIS, C., STEFAN MÜLLER, Optimal rigidity estimates for nearly umbilical surfaces. *J. Differential Geom.*, 69 (2005), no. 1, 75–110.
- [4] CRIPPA, G., DE LELLIS, C., Estimates and regularity results for the DiPerna-Lions flow. *J. Reine Angew. Math.*, 616 (2008), 15–46.
- [5] DE LELLIS, C., SZÉKELYHIDI, L. JR., The Euler equation as a differential inclusion. *Ann. of Math. (2)*, 170 (2009), 1417–1436.
- [6] DE LELLIS, C., SPADARO, E., Q -valued functions revisited *Mem. Amer. Math. Soc.*, 211 (2011), no. 991.
- [7] DE LELLIS, C., SZÉKELYHIDI, L. JR., Dissipative continuous Euler flows *Inv. Math.* 193 (2013), 377–407
- [8] BUCKMASTER, T., DE LELLIS, C, ISETT, P., SZÉKELYHIDI, L. JR. Anomalous dissipation for $1/5$ -Hölder Euler flows *Ann. of Math. (2)* 182 (2015), no. 1, 127–172.
- [9] DE LELLIS, C., SPADARO, E., Regularity of area minimizing currents II: center manifold *Ann. of Math. (2)* 183 (2016), no. 2, 499–575.
- [10] DE LELLIS, C., SPADARO, E., Regularity of area minimizing currents III: blow up *Ann. of Math. (2)* 183 (2016), no. 2, 576–616.

- [11] DE LELLIS, C., GHIRALDIN, F., MAGGI, F. A direct approach to Plateau's problem. *J. Eur. Math. Soc. (JEMS)*, 19 (2017), no. 8, 2219–2240.
- [12] DE LELLIS, C., DE PHILIPPIS, G., HIRSCH, J., MASSACCESI, A. On the boundary behavior of mass-minimizing integral currents *Mem. Amer. Math. Soc.*, 291 (2023), no. 1446.
- [13] Camillo De Lellis, Stefano Nardulli, and Simone Steinbrüchel. An Allard-type boundary regularity theorem for $2d$ minimizing currents at smooth curves with arbitrary multiplicity. *Publ. Math. Inst. Hautes Études Sci.*, 140:37–154, 2024.