

Curriculum Vitae et Studiorum

Emanuela Radici



Current Position

- from 01/10/2016: postDoc at Università degli Studi dell'Aquila, mentore prof. M. Di Francesco

Education

- born in Milan on 18/12/1989
- 2003-2008: student at Scientific High School Niccolò Copernico in Pavia, National Informatic Course class, final grade 100/100.
- 2008-2013: fellow of Collegio Universitario Santa Caterina da Siena in Pavia
- 20/09/2011 at Università degli Studi di Pavia: Bachelor degree in Mathematics "110/110 *cum laude*" discussing the thesis *Minimizing Movements*; advisor prof. E. Vitali
- 01/03/2013-30/06/2013 Erasmus Placement Student at FAU Erlangen Nürnberg; tutor prof. A. Pratelli
- 15/07/2013 at Università degli Studi di Pavia: Master degree in Mathematics "110/110 *cum laude*" discussing the thesis *Analysis of a 2D model for epitaxially strained growth of islands and properties of minimal configurations*; advisor prof. A. Pratelli
- 7/05/2014 at Istituto Universitario di Studi Superiori (IUSS) in Pavia: Diploma license discussing *Study of a Cahn-Hillard type phase field model related on tumor growth*; advisor prof. P. Colli, coadvisor prof. F. Brezzi,
- 09/12/2016 at Department of Mathematics of Friedrich–Alexander Universität Erlangen–Nürnberg: PhD defense in Mathematik "magna *cum laude*" discussing the thesis *Diffeomorphic approximation of planar elastic deformations*; advisor prof. A. Pratelli,
- 16/09/2013-31/8/2015: position funded by *ERC Starting Grant* 258685 - P.I. Aldo Pratelli,

Prizes and Awards

- IUSS study prize in the years 2008/09, 2009/10, 2010/11, 2011/12, 2012/13
- refund from Università degli Studi di Pavia for on time degree, 2013.

Works

- A. Pratelli, E. Radici: *On the piecewise approximation of bi-Lipschitz curves*, 2015, accepted by *Rend. Sem. Mat. Univ. Padova*.
- E. Radici: *A planar $W^{1,p}$ Sobolev extension theorem for piecewise linear homeomorphisms*, 2016, *Pacific Journal of Mathematics* 283-2, 405-418.
- A. Pratelli, E. Radici: *On the planar minimal BV extension problem*, 2017, preprint.
- A. Pratelli, E. Radici: *Approximation of BV planar homeomorphisms by diffeomorphisms*, 2017, preprint.

Invited Talks

- April 2014, Seminar Talk at C.I.A., University of Cambridge
- May 2016, Seminar Talk, "Oberseminar Analysis", Universität Regensburg
- May 2016, Seminar Talk at Charles University in Prague
- May 2017, Seminar Talk at Charles University in Prague
- July 2017, Seminar Talk, "Aggregation-Diffusion PDEs: Variational Principles, Nonlocality and Systems", Anacapri

Contributed talks

- Sept. 2013, Short Talk, "New trends in shape optimization", Friedrich–Alexander Universität Erlangen–Nürnberg
- Jan. 2014, Short Talk, "XXIV Convegno Nazionale di Calcolo delle Variazioni", Levico Terme
- January 2016, Short Talk, "XXVI Convegno Nazionale di Calcolo delle Variazioni", Levico Terme
- February 2016, Short Talk, "PDEs and applications", Università di Napoli

- September 2017, Seminar Talk, "IperPv 2017", Università di Pavia

Teaching Experience

- teaching assistant for *Analysis 1* lectures, winter semester 2014/2015 at FAU Erlangen-Nürnberg.
- teaching assistant for *Analysis 2* lectures, summer semester 2014/2015 at FAU Erlangen-Nürnberg.
- teaching assistant for *Mehrdimensionale Integration* lectures, winter semester 2015/2016 at FAU Erlangen-Nürnberg.
- teaching assistant for *Maßtheorie* lectures, summer semester 2015/2016 at FAU Erlangen-Nürnberg.
- teaching assistant for *Analisi Matematica II* lectures, summer semester 2016/2017 at Università dell'Aquila
- teaching assistant for *Analisi Matematica I* lectures, winter semester 2017/2018 at Università dell'Aquila
- teaching assistant for *Mathematics I* lectures, winter semester 2017/2018 at LUISS

Workshops and Schools

- Workshop "New trends in shape optimization", September 2013 at Friedrich–Alexander Universität Erlangen–Nürnberg (Erlangen).
- Workshop "XXIV Convegno Nazionale di Calcolo delle Variazioni", January 2014 in Levico Terme.
- Winter school *Calculus of Variations in Physics and Material Science*, February 2014 in Würzburg.
- Summer School *Partial Differential Equation and Geometric Measure Theory*, June 2014 in Cetraro.
- ERC Workshop *Existence and Regularity for Nonlinear Systems of Partial Differential Equations*, July 2014 at Centro de Giorgi (Pisa).
- ERC School *Free Discontinuity Problems*, July 2014 at Centro de Giorgi (Pisa).
- Workshop *Optimal Transport in the Applied Sciences*, December 2014 at Johann Radon Institute (RICAM) in Linz.
- Workshop "XXV Convegno Nazionale di Calcolo delle Variazioni", February 2015 in Levico Terme.

- Intensive Period *Variational Methods for Plasticity and Dislocations*, March-April 2015 at SISSA.
- Workshop *Geometric Analysis, Free Boundary Problems and Measure Theory*, June 2015 in Lipsia.
- Workshop *Shape optimization and spectral geometry*, July 2015 at ICMS in Edinburgh.
- Workshop *Workshop Analysis in Lyon*, October 2015 in Lyon.
- Winter School *Nonlinear Function Spaces in Mathematics and Physical Sciences*, December 2015 in Lyon.
- Workshop *XXVI Convegno Nazionale di Calcolo delle Variazioni*, January 2016 in Levico Terme.
- Workshop and Winter School *PDEs and Applications*, February 2016 in Napoli.
- Winter School *Calculus of Variations in Physics and Materials Science*, February 2016 in Würzburg.
- Workshop *Analysis, Geometry, and Optimal Transport*, June 2016 in Seoul.
- Workshop *A Mathematical Tribute to Ennio De Giorgi*, September 2016 at Centro de Giorgi (Pisa).
- Workshop *Conference in Calculus of Variations and Partial Differential Equation*, October 2016 in Lecce.
- Workshop *Workshop in Geometric Measure Theory, Shape Optimisation and Free Boundaries*, October 2016 at SISSA.
- Workshop *XXVII Convegno Nazionale di Calcolo delle Variazioni*, February 2017 in Levico Terme.
- Workshop *Workshop on PDEs: Modelling, Analysis and Numerical Simulation*, June 2017 in Granada.
- Workshop *Aggregation-Diffusion PDEs Variational Principles, Non-locality and Systems*, July 2017 in Anacapri.
- Workshop *IperPv 2017, XVII Italian Meeting on Hyperbolic Equations*, September 2017 in Pavia

Visiting for cooperation

- Faculty of Mathematics and Physics at Charles University, May 2016 in Prague

- Department Mathematik, Universität Regensburg, during 2015/2016 in Regensburg
- Department Mathematik, Friedrich–Alexander Universität Erlangen–Nürnberg, December 2016 in Erlangen
- Faculty of Mathematics and Physics at Charles University, May 2017 in Prague

Spoken languages

1. Italian (mother tongue)
2. English (fluent)
3. German (professional)
4. Spanish (basic)

IT Skills

- *Operating systems:* Unix environment, Mac OS, Windows
- *Programming languages:* C, Matlab
- *Graphics Editor:* Inkscape, Xfig, Photoshop