CV of LUCA MARTINAZZI

Contacts

Department of Mathematics
University of Padua
Via Trieste 63, Padova, I-35121
E.mail: luca.martinazzi@math.unipd.it

Personal Data

Citizenship: Italian
Spoken languages: English, Italian, German, French, Spanish, Portuguese

Degrees

M.Sc. in Mathematics
Scuola Normale Superiore, Pisa, 05/2004
Grade: 110/110 Cum Laude
Title of the Master Thesis: The non-parametric Plateau problem in arbitrary codimension
Advisor: Prof. M. Giaquinta

Ph.D. in Mathematics
ETH Zurich, 03/2009
Title of the Ph.D. Thesis: Concentration-Compactness phenomena in conformal geometry
Advisor: Prof. M. Struwe
Co-Advisor: Prof. T. Rivi`ere

Education

10/2000 - 09/2004 Scuola Normale Superiore, Pisa Undergraduate student
09/2004 - 08/2005 Stanford University, CA Graduate student
10/2005 - 03/2009 ETH Zurich Graduate student

Jobs

04/2009 – 09/2009 Postdoc at ETH Zurich
09/2011 – 06/2013 Hill assistant professor at Rutgers University (NJ)
07/2013 – 09/2017 SNF Förderungsprofessor at the University of Basel
Since 10/2017 Associate Professor at the University of Padua
Publications

Monographs

Research papers
1. Classification of solutions to the higher order Liouville’s equation on \( \mathbb{R}^{2m} \), Math. Z. 263 (2009), 307-329.
2. Conformal metrics on \( \mathbb{R}^{2m} \) with constant Q-curvature, Rend. Lincei. Mat. Appl. 19 (2008), 279-292.
7. (with M. Petrache) Existence of solutions to a higher dimensional mean-field equation on manifolds, Manuscripta Math. 133 (2010), 115-130.
15. (with A. Hyder) Conformal metrics on $\mathbb{R}^{2m}$ with constant $Q$-curvature, prescribed volume and asymptotic behavior, Discr. Cont. Dynamical Systems - A 35 (2015), 283-299.


18. (with S. Iula, A. Maalaoui), A fractional Moser-Trudinger type inequality in one dimension and its critical points, Differential and Integral Equations 29 (2016), 455-492.


30. (with P.-D. Thizy, J. Vétois), Sign-changing blow-up for the Moser-Trudinger equation in $\mathbb{R}^2$, in preparation.

Conference proceedings


2. Recent results and open problems on conformal metrics on $\mathbb{R}^n$ with constant $Q$-curvature, Extended Conference Abstracts, Spring 2013, CRM Barcelona.

**Fellowships and Research Grants**

09/2004 - 08/2007 Stanford Graduate Fellowship (dropped when moving to ETH Zurich).
10/2005 - 09/2006 Scholarship of the Graduate School of Mathematics of Zürich (25'000 CHF).
04/2008 - 09/2009 ETH Research Grant “TH” no. ETH-02 08-2 (90’000 CHF).
02/2010 - 01/2011 Swiss National Foundation fellowship for prospective researchers no. PBEZP2-129520 (42’000 CHF).
07/2013 - 06/2017 Swiss National Foundation Professorship (1’411’031 CHF).
07/2017 - 06/2019 Swiss National Foundation Professorship (546’387 CHF).

**Organized activities**

— June 10-14 2014: Conference “Recent advances in non-local and non-linear analysis: theory and applications”, organized with Francesca Da Lio, Rafe Mazzeo, Tristan Rivière at FIM, ETH Zurich.
— June 22-26 2014 and July 14-18 2014: Summer school on Geometric Measure Theory and Geometric Analysis, organized with Camillo De Lellis and Gianluca Crippa at the University of Basel.
— December 15-17 2014: Workshop “Nonlocal days” on non-local equations, organized with Enno Lenzmann and Tristan Rivière at the University of Basel.

**Invited speaker**

— 23/10/2007 – ETH Zurich, weekly seminar of the Analysis group.
— 25/05/2009 – Cergy-Pontoise, conference ”Geometric and nonlinear analysis”.
— 11/06/2009 – Centro De Giorgi, Scuola Normale Superiore di Pisa, research period ”Geometric Flows and Geometric Operators”.
— 01/07/2009 – Centro De Giorgi, Scuola Normale Superiore di Pisa, workshop ”Geometric Flows and Geometric Operators”.
— 04/08/2009 – Mathematisches Forschungsinstitut Oberwolfach, workshop ”Partielle Differentialgleichungen”.

4
— 05/05/2010 – SISSA, weekly seminar of the Functional Analysis group.
— 15/12/2010 – Pisa, weekly seminar of Calculus of Variations.
— 09/02/2011 – MIT (Boston), weekly geometry seminar.
— 11/02/2011 – MIT (Boston), mini-course on concentration-compactness.
— 16/02/2011 – Rutgers University (New Jersey), weekly non-linear analysis seminar.
— 18/02/2011 – Princeton University (New Jersey), weekly geometry seminar.
— 24/02/2011 – Columbia University (New York), weekly geometry seminar.
— 19-20/05/2011 – Rencontre de Mathématique, Université de Lyon, 4-hour mini-course.
— 02/06/2011 – SISSA (Trieste), conference “Higher order operators in geometry and physics”.
— 23/05/2012 – Universitäet Basel, weakly analysis seminar.
— 25/05/2012 – EPF Lausanne, weekly analysis seminar.
— 29/05/2012 – ETH Zürich, weekly analysis seminar.
— 14/06/2012 – Hausdorff Center, Bonn, weekly analysis seminar.
— 18/10/2012 – City University of New York, weekly analysis seminar.
— 05/02/2013 – University of Pennsylvania, weekly analysis seminar.
— 15/04/2013 – John Hopkins University, Baltimore, weekly analysis seminar.
— 30/04/2013 – Rutgers University, weekly nonlinear analysis seminar.
— 04/07/2013 – CRM Barcelona, conference “Geometric analysis”.
— 08/10/2013 – University of Rome - Tor Vergata.
— 03/02/2014 – University of Tübingen, colloquium.
— 13/01/2015 – TIFR Bangalore, colloquium.
— 24/02/2015 – University of Lyon, analysis seminar.
— 27/04/2015 – University of Bern, colloquium.
— 14/07/2015 – Scuola Normale Superiore di Pisa.
— 10/11/2015 – University of Nancy, weekly analysis seminar.
— 01/12/2015 – ETH Zurich, weekly analysis seminar.
— 18/05/2016 – Fields institute, Conference “Qualitative Aspects of the Theory of Nonlocal Equations”
— 23/06/2016 – University of Konstanz, Oberseminar.
— 01/07/2016 – Mittag-Leffler Institute, Conference “Geometric and Physical aspects of Trudinger-Moser type inequalities”.
— 20/12/2016 – Università di Milano.
— 17/01/2017 – University of Frankfurt, weekly analysis seminar
— 18/01/2017 – University of Giessen, weekly analysis seminar
— 23/01/2017 – University of Salzburg, weekly analysis seminar
— 16/02/2017 – Scuola Normale Superiore di Pisa, weekly analysis seminar
— 06/03/2017 – University of Cergy-Pontoise, analysis seminar
— 09/03/2017 – University of Pau, analysis seminar
— 07/06/2017 – RIMS Kyoto, conference “Analysis on Shapes of Solutions to Partial Differential Equations”
— 10/06/2017 – Osaka City University, “37th South Osaka Applied Mathematics Seminar”
— 03/04/2018 – Birs workshop “Physical, Geometrical and Analytical Aspects of Mean Field Systems of Liouville Type”
— 10/04/2018 – UBC Vancouver.
— 01/05/2018 – Rutgers, Nonlinear analysis seminar.
— 02/05/2018 – CUNY, Nonlinear Analysis and PDEs seminar.
— 03/05/2018 – Princeton, Special seminar in geometric analysis.
— 22/05/2018 – University of Copenhagen, Copenhagen-Lund Lectures.
— 23/05/2018 – University of Pisa.
— 24/09/2018 – University of Cagliari
— 09/10/2018 – University of Lyon
— 31/10/2018 – University of Ferrara
— 06/11/2018 – ETH Zurich, Analysis seminar
— 15/11/2018 – University of Bologna
— 22/11/2018 – University of Rome La Sapienza.
— 03/05/2019 – University of Montreal, Canada.
— 08/05/2019 – Birs workshop “Nonlinear geometric PDEs”, Banff, Canada.
— 30/05/2019 – Workshop “Partial Differential Equations in Analysis and Mathematical Physics”, Santa Margherita di Pula (CA), Italy.
— 13/06/2019 – University of Granada, Spain.
— 02/08/2019 – XI Brazilian-Italian workshop on Nonlinear Differential Equations, Varese.
— 05/08/2019 – Workshop on Sharp Geometric Inequalities and applications to PDEs and Geometry, Sanya, China.
— 31/10/2019 – Symposium “Recent advances in nonlinear problems”, City University of New York.
— 13/12/2019 – Workshop “6th Weekend on Variational Methods and Differential Equations” University of Catania, Italy.
— 08/01/2020 – University of Turin, Italy.
— 20/02/2020 – Osaka City University, workshop “Variational analysis on critical problems of nonlinear partial differential equations”.

PhD students and postdocs
— Ali Hyder, from TIFR Bangalore (PhD student 07/2013-06/2017)
— Stefano Iula, from Università di Roma, La Sapienza (PhD student 07/2013-06/2017)
— Dr. Ali Maalaoui, from Rutgers university (Postdoc 07/2013-06/2014)
— Dr. Armin Schikorra, from MPI Leipzig (Postdoc 07/2014-01/2015)
— Dr. Gabriele Mancini, from SISSA (Postdoc since 10/2015)
— Dr. Federica Sani, from Università di Milano (Postdoc 08/2016-11/2016)
— Dr. Azahara de la Torre Pedraza, from UPC Barcelona (Postdoc 01/2017-03/2018)
— Dr. Luca Battaglia, from Università di Roma La Sapienza (Postdoc 06/2017-07/2017)
— Dr. Cheikh Ndiaye, from University of Giessen (Postdoc 03/2017-09/2017)
Teaching

Rutgers
At Rutgers I taught the following courses:
1. Calculus (Fall 2011)
2. Multivariable Calculus (Fall 2011)
3. Advanced Calculus for Engineering (Spring 2012)
4. Calculus (Fall 2012)
5. Ordinary differential equations (Spring 2013)

University of Basel
At the university of Basel I taught the following courses:
1. Differential geometry (Spring 2015)
2. Probability (Spring 2016)
3. Calculus of Variations (Spring 2017)

PUC-Rio
I visited PUC-Rio in Fall 2016, giving a course on elliptic regularity.

University of Padua
1. Analysis 1 (Fall 2017)
2. Analisi Superiore 1 (with Giovanni Colombo) (Fall 2017)
3. Analysis 1 (Fall 2018)
4. Complements of Analysis – @ Scuola Galileiana (Fall 2018)
5. Calculus of Variations (Spring 2019)
6. Analysis 1 (Fall 2019)
7. Degree Theory (Fall 2019) – PhD course
8. Complements of Analysis – @ Scuola Galileiana (Fall 2019)
9. Analysis 1 (Fall 2020)
10. Calculus of Variations (Spring 2021)