

# Curriculum Vitae

## MARCELLO LUCIA

Professor of Mathematics  
Mathematics Department  
College of Staten Island, CUNY  
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Doctoral Faculty  
Mathematics Program  
The Graduate Center, CUNY  
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ORCID: 0000-0002-3446-3906

- 12/1997     **PhD degree in Mathematics**  
              École Polytechnique Fédérale de Lausanne  
              *Bifurcation Problems for Special Solutions of Maxwell's Equations*  
              Adviser: C.A. Stuart (committee J. Pejsachowicz, C.G. Simader)
- 03/1992     **MSc degree in Mathematics** (Faculty prize)  
              University of Lausanne  
              *Two Problems on Algebraically Closed Fields* (Adviser: J. Boéchat)

### Research Interests

Nonlinear Partial differential equations, calculus of variations, geometric analysis.

### Positions

- Since 08/2016: *Full Professor*, College of Staten Island and CUNY Graduate Center
- 01/2012 – 08/2016: *Associate professor*, College of Staten Island and CUNY Graduate Center
- 09/2009 – 01/2012: *Assistant professor*, College of Staten Island at CUNY
- 08/2008 - 08/2009: *Ramón Y Cajal Fellow*, Universitat Politècnica de Catalunya
- 09/2007 – 07/2008: *Assistant professor*, College of Staten Island at CUNY
- 01/2006 – 06/2007: *Alexander von Humboldt Fellow*, University of Cologne
- 09/1999 -01/2006: Postdoctoral positions and visiting positions:  
              *University of Rome (1999-2000), Universitat Politècnica de Catalunya (2000-2001),*  
              *Tata Institute in Bangalore (2001), Rutgers University (2002 – 2004),*  
              *Beijing Chinese Academy of Sciences and Tata Institute in Bangalore (2004-2005),*  
              *National Center of Theoretical Science at Hsinchu (09/2005-01/2006)*

## Brief Narrative

Marcello Lucia is a mathematician specializing in partial differential equations and calculus of variations. He is particularly interested in working on problems related to minimal immersions, mean field equations in statistical mechanics or aggregations models in chemotaxis. Though those questions arise in very different areas, they lead to study similar nonlocal problems for which classical nonlinear methods do not apply. Inspired by A. Bahri's works, he designed an approach that opened the possibility of using Morse theory to analyze the existence of solutions for a wide family of problems, where the standard variational theory fails. This new path has been followed by many mathematicians in nonlinear analysis. His expertise has also been applied in solving successfully questions arising in Differential Geometry, leading to several results for minimal and CMC immersions in hyperbolic spaces.

## Academic Recognition

- Ramón Y Cajal Fellow (August 2008)
- Alexander Von Humboldt Fellow (January 2006).

## Synergistic activities

- Organizer of nonlinear seminars at the Graduate Center at CUNY
- Organizer of a symposia series at the Graduate Center at CUNY (17 events since 2011)
- Co-organizer of AMS sectional Meetings (2015, 2014, 2012)
- Served in several CUNY review panels
- Reviewer for math/physics journals and External reviewer for PhD theses
- Member of Val/Sal committee at CSI (2013-2016)
- Member of the Executive committee in the PhD Program in Mathematics, Graduate Center at CUNY (2015-2020)

## Grants

- CUNY Planning Grant Program, PI, \$20,000 (2022–2023)
- Ministerio de Ciencia e Innovación, MTM 2017 (Spain), Co-PI (14 participants), 101.761 EUR (2018–2022)
- Simons Foundation Grant, PI, \$35,000 (2011–2016)
- PSC-CUNY Research Grants, PI (awarded in 2011, 2013, 2015, 2020)

## Visiting Positions and Relevant Research stays (after 2015)

- University of Cagliari, Italy, 06/22 - 07/22 (1 month)
- University of Giessen, Germany, 05/22 - 06/22 (1 month)
- University of Rome, 10/21 - 11/21 (1 month)
- Beijing Normal University, 12/19 - 01/20 (1 month)
- Taida Institute for Mathematical Sciences, Taipei, 07/17 (3 weeks)
- University of Cologne, Albert's Global Researcher, 03/17 - 05/17 (3 months)
- University of Cologne, 06/16 - 07/16 (2 months)
- Center for Partial Differential Equations, ECNU, Shanghai, 09/16-12/16 (3 months)

## Selected Conferences (after 2015)

- Summer School in Cagliari, Graduate lectures series on [Nonlinear problems arising from minimal immersions in hyperbolic 3-manifolds](#), 06/2022
- Sanya International Forum, "Frontiers of Geometry and analysis of Teichmüller space", 01/2020
- Princeton University Nonlinear analysis seminar, 12/2019
- Plenary talk in "Variational Problems arising from Physics and Geometry" Rauschholzhhausen Castle, Germany, 07/2018
- Plenary talk in Conference in Honor of Prof. Abbas Bahri, Tunisia, 05/2015

## Teaching

- Graduate Ph.D Students: Samuel Magill (current), Edger Sterjo (graduated in 2018)
  - Graduate MA Students: Mikhail Shklyar (MA 2016)
  - Undergraduate courses (calculus, linear algebra, group theory), and graduate courses (Differential Geometry, Real Analysis, ODE, PDE, Functional analysis)
- Mentoring regularly undergraduate students (projects, independent studies)