

CURRICULUM VITAE

DANIELE GARRISI

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EDUCATION

Ph.D., Scuola Normale di Pisa, 2008

"Ordinary differential equations in Banach spaces and the spectral flow"

Bachelor and Master degree in Mathematics, Università di Pisa, 2001

EMPLOYMENT HISTORY

University of Leeds, Tutorial Assistant, 2018/01/29 - 2019/06/30

Inha University, Assistant Professor, 2012/03/01 - 2017/02/28

Postech, Postdoctoral Research Associate, 2009/09/01 - 2012/02/28

Università di Pisa, Teaching Assistant, 2007/02/26 - 2008/12/31

AWARDS

600 euros received from Università di Pisa on June 22, 2002 in the "Auditorium del Palazzo dei Congressi" for the completion of undergraduate studies with the highest score "110/110 cum laude".

SCHOLARSHIPS

1. Ph.D. scholarship from the Scuola Normale
2. Ph.D. scholarship from Università di Pisa¹

QUALIFICATIONS

Associate Fellow of the Higher Education Academy - Ref. no. PR158578 - 2018/12/13

¹I turned down the offer of Università di Pisa to enter a Ph.D. program at the Scuola Normale

PUBLICATIONS

1. with V. Georgiev "Orbital stability and uniqueness of the ground state for NLS equation in dimension one" on *Discrete and Continuous Dynamical Systems - A*, Vol. 37, N. 8, 4309-4328, August 2017
2. "On the connected components of the conjugacy class of projectors on $\ell_p \oplus \ell_q$, on *Indagationes Mathematicae*, Vol. 28, N. 2, 446-450, April 2017
3. "Standing-wave solutions to a system of non-linear Klein-Gordon equations with a small energy/charge ratio" on *Advances in Nonlinear Analysis*, Vol. 3, n. 4, 237-245, November 2014
4. "On the orbital stability of standing-wave solutions to a coupled non-linear Klein-Gordon equation" on *Advanced Nonlinear Studies*, Vol. 12, n. 3, 639-658, December 2012
5. "On the spectral flow for paths of essentially hyperbolic bounded operators on Banach spaces" on *Topological Methods in Nonlinear Analysis*, Vol. 36, n. 2, 353-381, December 2010.

CONFERENCE PAPERS

1. "Uniqueness of standing-waves for a non-linear Schrödinger equation with three pure-power combinations in dimension one" **accepted for publication** on *Communications in Contemporary Mathematics*
2. "Orbitally stable standing-wave solutions to a coupled non-linear Klein-Gordon equation", on *Advanced Studies in Pure Mathematics*, Vol. 64, 387-398, April 2015

RESEARCH GRANTS

1. "Uniqueness and non-degeneracy of normalized standing-waves"

London Mathematical Society, Research in Pairs - Scheme 4

Grant ref.: 41753

Role: Principal Investigator

2018/08/01 - 2019/07/31

2. "Stability in non-linear evolutionary equations"

Inha University

Grant ref.: A15-5877

Role: Principal Investigator

2015/04/01 - 2016/03/31

RESEARCH INTERESTS

Non-linear partial differential equations, Calculus of Variations, Functional Analysis.

TAUGHT MODULES AT UNIVERSITY OF LEEDS, SCHOOL OF MATHEMATICS

1. Fall 2018, Graph Theory, as a Lecturer in coordination with Paul Shafer
2. Fall 2018, Probability and Statistics I, as a Tutorial Assistant and Marker
3. Fall 2018, Mathematical Biology, as a Marker
4. Fall 2018, Introduction to Geometry, as a Tutorial Assistant and Marker
5. Spring 2018, Discrete Mathematics as a Marker
6. Spring 2018, Modelling with Differential Equations

Roles: Tutorial Assistant, Marker and Presentation supervisor

7. Spring 2018, Introduction to Applied Mathematics 2, as a Tutorial Assistant
8. Spring 2018, Elementary Integral Calculus (Version 1), as a Tutorial Assistant
9. Spring 2018, Sets, Sequences and Series, as a Tutorial Assistant and Marker
10. Spring 2018, Financial Mathematics I

Roles: Tutorial Assistant, Marker and Practical supervisor.

TAUGHT MODULES AS A LECTURER AT INHA UNIVERSITY

11. Fall 2016, Applied Analysis, Department of Mathematics Education
12. Fall 2016, Differential Equations, Department of Mathematics Education
13. Spring 2016, Measure Theory, Department of Mathematics Education
14. Spring 2016, Set Theory, Department of Mathematics Education
15. Fall 2015, Applied Analysis, Department of Mathematics Education
16. Fall 2015, Differential Equations, Department of Mathematics Education
17. Spring 2015, Measure Theory, Department of Mathematics Education
18. Spring 2015, Set Theory, Department of Mathematics Education
19. Fall 2014, Applied Analysis, Department of Mathematics Education
20. Fall 2014, Differential Equations, Department of Mathematics Education
21. Spring 2014, Measure Theory, Department of Mathematics Education
22. Spring 2014, Set Theory, Department of Mathematics Education
23. Fall 2013, Applied Analysis, Department of Mathematics Education
24. Fall 2013, Set Theory, Department of Mathematics Education
25. Spring 2013, Differential Equations, Department of Mathematics Education
26. Fall 2012, Applied Analysis, Department of Mathematics Education
27. Fall 2012, Set Theory, Department of Mathematics Education
28. Spring 2012, Measure Theory, Department of Mathematics Education
29. Spring 2012, Differential Equations, Department of Mathematics Education

TAUGHT MODULES AS A TEACHING ASSISTANT AT UNIVERSITY OF PISA

30. Fall 2008, Mathematical Analysis III, Department of Physics
31. Fall 2008, Mathematics, Department of Pharmacy
32. Fall 2008, Mathematics and foundations of Medical Statistics, Department of Pharmacy
33. Fall 2007, Mathematics, Department of Pharmacy
34. Fall 2007, Mathematics and foundations of Medical Statistics, Department of Pharmacy
35. 2007-2008, Mathematics II, Department of Engineering
36. Spring 2007, Mathematics II, Department of Engineering.

INVITED, CONTRIBUTED TALKS IN CONFERENCES AND SEMINARS

1. Poster presentation "Stability and uniqueness of normalized standing-waves", Satellite Conference on Nonlinear Partial Differential Equations of the International Conference of Mathematicians (ICM), Mareiro Hotel, Fortaleza, Brazil, 23-27 July 2018

2. "Orbital stability of standing-wave solutions to non-linear Schroedinger equations for combined power-type non-linearities in dimension one", Steklov Institute, Saint Petersburg, on February 13 2017
3. "Non-degeneracy and uniqueness of H^1 symmetric minima for combined power-type non-linearities", at the *2017 JMM (Joint Mathematics Meetings)*, Hyatt Regency Atlanta and Marriott Atlanta Marquis, Atlanta, on January 7, 2017
4. "Uniqueness and non-degeneracy of standing-wave solutions to the non-linear Schrödinger equation", in the AMS Special Session on *Spectral Calculus and Quasilinear Partial Differential Equations* at the *2017 JMM*, Hyatt Regency Atlanta and Marriott Atlanta Marquis, Atlanta, on January 6, 2017
5. "On the connected components of the conjugacy class of projectors on $\ell_p \oplus \ell_q$ ", at the *2016 KMS (Korean Mathematical Society) Fall Meeting*, Seoul National University, Seoul, on October 22, 2016
6. "Uniqueness and non-degeneracy of Q -balls in dimension one", at the *2016 KMS Spring Meeting*, Sungkyunkwan University, Suwon, on April 23, 2016
7. "Orbital stability of standing-wave solutions to the non-linear Schrödinger equation in dimension one", at the *2016 JMM*, Washington State Convention Center, Seattle, on January 7, 2016
8. "Minimal stable subsets of the ground state: the non-linear Schrödinger equation", at the *2015 KMS Spring Meeting*, Busan University, Busan, on April 25, 2015
9. "Finiteness, up to translations, of standing-wave solutions to a nonlinear Schroedinger equation" at the *2015 JMM*, Henry Gonzalez Convention Center, San Antonio, on January 13, 2015
10. "On the compactness of minimizing sequences of an energy functional arising from a system of Non-Linear Klein-Gordon Equations" at the *2014 KMS Spring Meeting*, Gangreung University, Gangreung, on April 25, 2014
11. "Traveling wave solutions to the half-wave equation", at the *2014 JMM*, Baltimore Convention Center, Baltimore, on January 17, 2014
12. "Traveling wave solutions to the half-wave equation" at the *2013 KMS Fall Meeting*, Seoul University, Seoul, on October 26, 2013
13. "Standing-waves with a small energy/charge ratio" at the *2013 KSIAM Spring Meeting*, Yonsei University, Seoul, on May 24, 2013
14. "Orbital Stability by means of symmetric rearrangement" at the *2013 Joint Mathematics Meetings*, San Diego Convention Center, San Diego, on January 10, 2013
15. "Standing-waves with a small energy/charge ratio" at the *2012 KMS Spring Meeting*, Sook-Myeong Women University, Seoul, on April 28, 2012
16. "Standing-waves solutions to a system of non-linear Klein-Gordon equations with a sub-critical growth non-linearity" at *2012 JMM*, Hynes Convention Center, Boston, on January 7, 2012
17. "On the spectral flow for Banach spaces" at the *2011 KMS Fall Meeting*, Gyeongbuk National University, Daegu, on October 22, 2011
18. "Orbitally stable coupled standing waves for a coupled non-linear Klein-Gordon equation" at the *4th MSJ-SI Nonlinear dynamics in Partial Differential Equations*, Kyushu University, Fukuoka, on September 14, 2011
19. "Lyapunov functions for standing-wave solutions to a coupled NLKG equation" at *The 3rd Kyushu University-Postech Joint Workshop*, Postech, Pohang, on June 17, 2011
20. "Orbitally stable coupled standing waves" at the *2011 KMS Fall Meeting*, Postech, on October 22, 2010

21. "A splitting property for two variables functions" at the *Young Researchers in Mathematics 2010*, Center for Mathematical Sciences, Cambridge, on March 26, 2010
22. "Non-linear elliptic systems and stability", at the *Joint Meeting KMS-AMS*, Ewha University, Seoul, on December 19, 2009
23. "On the spectral flow for Banach spaces" at *Beyond Part III*, Center for Mathematical Sciences, Cambridge, on April 16, 2009.

SCHOOLS AND SKILLS TRAINING

1. "Induction Course for New Lecturers in the Mathematical Sciences 2018"
Isaac Newton Institute for Mathematical Sciences, Cambridge, September 10–11, 2018
2. "Unconscious bias, equality and inclusion", by Josie Hastings
University of Leeds, June 25, 2018
3. *Korea PDE School #2: Optimal Transportation and Variational method*
NIMS (Daejeon), January 9–13, 2012
4. *Korea PDE School #1: Mathematics of Diffusion*
NIMS (Daejeon), February 22–26, 2011
5. *School on Hamiltonian dynamics and symplectic geometry*
KIAS (Seoul), July 12–16, 2010
6. *New connections between Hamiltonian PDE and Dynamical Systems*
Università Federico II (Napoli), from March 30 to May 31, 2009
7. *Two weeks on Global Analysis*
Centro de Giorgi (Pisa), February 14–26, 2005
8. *Morse theoretic methods in non-linear analysis and symplectic topology*
SMS 2004/NATO ASI, University of Montreal, from June 21 to July 2, 2004.

PROGRAMMING SKILLS

1. As a Ph.D. student I took a course of C and C++ programming
 2. Bash, LaTeX
 3. Excel
- Knowledge of actuarial functions, acquired during the supervision of practicals of Financial Mathematics (MATH1510) at the University of Leeds
4. Sage
- GraphL^AT_EX class used to plot graphs for my course of Graph Theory at the University of Leeds.

LANGUAGES

Italian: native
English: fluent
Korean: fluent (TOPIK II)
French: intermediate