

Europass Curriculum Vitae

Personal information

NAME	Francesca De Marchis
E-MAIL	demarchi@mat.uniroma2.it
DATE AND PLACE OF BIRTH	born on July 22, 1983 in Rome
NATIONALITY	Italian
STATUS	Married - One child

Current position

INSTITUTION	University of Rome Tor Vergata
POSITION	postdoctoral research fellow
SUPERVISOR	Professor Gabriella Tarantello
DATES	June 2012 - present
MATERNITY LEAVE	September 4, 2013 – March 5, 2014

Past position

INSTITUTION	University of Rome Sapienza
POSITION	postdoctoral research fellow
SUPERVISOR	Professor Filomena Pacella
DATES	May 2011 - April 2012

Education

DEGREE	Ph.D. in Mathematical Analysis
INSTITUTION	International School for Advanced Studies (SISSA), Trieste
THESIS	Existence and multiplicity of solutions for problems in Geometrical Analysis
ADVISOR	Professor Andrea Malchiodi
DATES	From November 2007 to October 2010 – Ph.D. Defense 29/10/2010

DEGREE	SISSA's Master Degree
INSTITUTION	International School for Advanced Studies (SISSA), Trieste
DATES	October 2005 - March 2008

DEGREE	Master's degree in Mathematics
GRADE	110 out of 110 cum laude
INSTITUTION	University of Trieste
THESIS	Variational methods for a mean field equation on compact surfaces
ADVISOR	Professor Andrea Malchiodi
DATES	October 2005 - July 2007

DEGREE	Bachelor's degree in Mathematics
GRADE	110 out of 110 cum laude
INSTITUTION	University of Rome Sapienza
THESIS	Finite perimeter sets and BV functions
ADVISOR	Professor Luigi Orsina
DATES	October 2002 - July 2005

Grants and Awards

DATE	December 2011 Prize for the best PhD in Mathematics in memory of "Marco Cuzzo", awarded by University of Rome Tor Vergata.
DATES	November 2007 - October 2010 Three-years fellowship for Ph.D. course in Mathematical Analysis, instituted by SISSA.
DATES	October 2005 - September 2007 Two-years fellowship for Master's Degree in Mathematics, instituted by SISSA, with a curriculum for a high level training in Mathematics.
DATE	October 2005 "Cesare e Giustina Labonia" Graduation Prize for the best female graduate student in Mathematics in Rome, awarded by FILDIS.
DATE	October 2005 Prize for the best undergraduate student in Mathematics, awarded by the Department of Mathematics of University of Rome Sapienza.
DATES	October 2002 - September 2005 Three-years fellowship for Degree in Mathematics, instituted by Istituto Nazionale Di Alta Matematica.

Projects and groups

GNAMPA 2014	<i>Blow up phenomena for semilinear parabolic problems</i>
ROLE	Principal Investigator
PRIN 2012	<i>Variational and perturbation aspect of nonlinear differential problems</i>
ROLE	Participant (PI: Susanna Terracini)
PROGETTO ATENEIO 2012	<i>Nonlinear differential problems: existence and qualitative properties of solutions</i>
ROLE	Participant (PI: Filomena Pacella)
FIRB-IDEAS 2009-2013	<i>Analysis and Beyond</i>
ROLE	Participant (PI: Andrea Malchiodi)
PRIN 2009	<i>Nonlinear elliptic problems in the study of vortices and related topics</i>
ROLE	Participant (PI: Andrea Malchiodi)
INDAM GROUP	GNAMPA
ROLE	Participant, 2009-2014

Visits

DATES	January 2013
INSTITUTION	University of Giessen, Germany
DATES	November 2010 - December 2010
INSTITUTION	SISSA, Trieste

DATES September 2009 - November 2009
INSTITUTION Princeton University, USA
During the special Program on Geometric Partial Differential Equations at the IAS

Publications

- AUTHORS F. De Marchis, I. Ianni, F. Pacella
TITLE *Morse index and sign changing bubble towers for Lane-Emden problems,*
JOURNAL submitted to Ann. Mat. Pura Appl., arXiv:1406.3970.
- AUTHORS F. De Marchis, I. Ianni
TITLE *Blow up of solutions of semilinear heat equations in non radial domains of \mathbb{R}^2*
JOURNAL to appear in Discrete and Contin. Dyn. Systems - A, arxiv:1403.0115
- AUTHORS F. De Marchis, I. Ianni, F. Pacella
TITLE *Asymptotic analysis and sign changing bubble towers for Lane-Emden problems,*
JOURNAL to appear in J. Eur. Math. Soc., arXiv:1309.6961.
- AUTHORS D. Bartolucci, F. De Marchis
TITLE *Supercritical Mean Field Equations on convex domains and the Onsager's statistical description of two-dimensional turbulence*
JOURNAL submitted to Arch. Ration. Mech. Anal., arXiv:1305.4112
- AUTHORS F. De Marchis, I. Ianni, F. Pacella
TITLE *Sign changing solutions of Lane Emden problems with interior nodal line and semilinear heat equations*
JOURNAL J. Differential Equations 254, n.8, (2013), pp. 3596-3614
- AUTHORS D. Bartolucci, F. De Marchis
TITLE *On the Ambjorn-Olesen Electroweak condensates*
JOURNAL J. Math. Phys. 53, n.7, (2012), 073704, 15 pp
- AUTHORS D. Bartolucci, F. De Marchis, A. Malchiodi
TITLE *Supercritical conformal metrics on surfaces with conical singularities*
JOURNAL Int. Mat. Res. Not., n.24, (2011), 5625-5643
- AUTHOR F. De Marchis
TITLE *Multiplicity of solutions for a mean field equation on compact surfaces*
JOURNAL Boll. U.M.I., 4, n.2, (2011), 245-257
- AUTHOR F. De Marchis
TITLE *Existence and multiplicity of solutions for problems in Geometrical Analysis*
PHD THESIS SISSA Trieste, 2010
- AUTHOR F. De Marchis
TITLE *Generic multiplicity for a scalar field equation on compact surfaces*
JOURNAL J. Funct. Anal., 259, n.8, (2010), 2165-2192
- AUTHOR F. De Marchis
TITLE *Multiplicity result for a scalar field equation on compact surfaces*
JOURNAL Comm. Partial Differential Equations, 33, n.10-12, (2008), 2208-2224

Reviewing activity

- ▷ Referee for Transactions of the American Mathematical Society, Journal of Functional Analysis, Manuscripta Mathematica, Discrete and Continuous Dynamical Systems.

Invited talks

DATE	July 2014
PLACE	Madrid
EVENT	<i>AIMS Conference Series on Dynamical Systems and Differential Equations. Special section: Recent trends in nonlinear Schrodinger systems</i>
DATE	March 2014
PLACE	University of Oxford
EVENT	<i>Workshop Women in Partial Differential Equations & Calculus of Variations</i>
DATE	May 2013
PLACE	Università di Roma Tor Vergata
DATE	January 2013
PLACE	Universität Giessen
DATE	January 2012
PLACE	Università degli Studi di Roma Sapienza
DATE	January 2012
PLACE	TATA Institute of Fundamental Research, Bangalore
EVENT	<i>School Cocompact embeddings, profile decompositions, and their applications to PDE</i>
DATE	December 2011
PLACE	Università di Roma Tor Vergata
EVENT	<i>Workshop New entries at Tor Vergata 2011</i>
DATE	November 2011
PLACE	Pienza
EVENT	<i>Workshop Nonlinear Differential Equations</i>
DATE	May 2011
PLACE	Università degli Studi di Roma Sapienza
DATE	May 2010
PLACE	ULB, Bruxelles
EVENT	<i>Spring School in Nonlinear Partial Differential Equations</i>
DATE	October 2009
PLACE	CIRM, Luminy
EVENT	<i>Workshop Loss of compactness in nonlinear problem: new trends and applications</i>
DATE	August 2009
PLACE	SMI, Cortona
EVENT	<i>Summer school in Geometric Aspects in Non-Linear Analysis</i>
DATE	May 2009
PLACE	Centro De Giorgi, Pisa
EVENT	<i>Trimester on Geometric Flows and Geometric Operators</i>

Posters

DATE	January 2011
PLACE	Istituto Canossiano, Venezia
EVENT	<i>Variational and perturbative methods for nonlinear differential equations</i>
DATE	March 2009
PLACE	CIRM, Luminy
EVENT	Workshop <i>Aspects géométriques des équations aux dérivées partielles</i>

Teaching experiences

DATES	winter semester A.Y. 2012/2013
ASSIGNMENT	Teaching assistant for the course <i>Mathematical Analysis II</i> , Department of Industrial Engineering, University of Rome Tor Vergata
DATES	winter semester A.Y. 2011/2012
ASSIGNMENT	Tutoraggio OFA (Obblighi Formativi Aggiuntivi), Faculty of Sciences, University of Rome Sapienza
DATES	September 2011
ASSIGNMENT	Precorso di Matematica, Faculty of Architecture, University of Rome Sapienza
DATES	summer semester A.Y. 2010/2011
ASSIGNMENT	Teaching assistant for the course <i>Algebra I</i> , Department of Mathematics, University of Rome Sapienza
DATES	November – December 2010
ASSIGNMENT	Minicourse of 4 seminars: <i>Some results on Liouville-type equations</i> , SISSA, Trieste
DATES	summer semester A.Y. 2009/2010
ASSIGNMENT	Teaching assistant for the course <i>Meccanica Analitica</i> , Department of Mathematics and Informatics, University of Trieste