Europass
Curriculum Vitae

Peronal information

NAME	**Francesca De Marchis**
DATE AND PLACE OF BIRTH	born on July 22, 1983 in Rome
NATIONALITY	Italian

Current position

INSTITUTION	University of Rome Sapienza
POSITION	postdoctoral research fellow
SUPERVISOR	Professor Emanuele Caglioti
DATES	December 2014 - present

Past positions

INSTITUTION	University of Rome Tor Vergata
POSITION	postdoctoral research fellow
SUPERVISOR	Professor Gabriella Tarantello
DATES	June 2012 - December 2014
MATERNITY LEAVE	September 4, 2013 – March 5, 2014
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 (Diploma Percorso Formativo Comune)
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

Fellowships and Awards

DATE	December 2011
	Prize for the best PhD in Mathematics in memory of "Marco Cuozzo", awarded by University of Rome Tor Vergata.
DATES	March 2011
	Post-doc fellowship, awarded by INDAM (declined).
DATES	November 2007 - October 2010
	Three-years fellowship for Ph.D. course in Mathematical Analysis, awarded by SISSA.
DATES	October 2005 - September 2007
	Two-years fellowship for Master's Degree in Mathematics (Diploma Percorso Formativo Comune), awarded 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, awarded by INDAM.

Research visits

DATES	April 2016
INSTITUTION	ETH, Zürich, Switzerland
DATES	May 2015
INSTITUTION	ETH, Zürich, Switzerland
DATES	November 2014
INSTITUTION	University of Naples, Italy
DATES	October 2014
INSTITUTION	University of Granada, Spain
DATES	January 2013
INSTITUTION	University of Giessen, Germany
DATES	November 2010 - December 2010
INSTITUTION	SISSA, Italy

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

Organization Activity

DATES	2-6 February 2015
	Session on *Nonlinear analysis and elliptic PDEs* during the "Congreso de la RSME 2015", Granada, Spain

Projects and groups

AVVIO ALLA RICERCA SAPIENZA 2015	*Differential Equations with Power or Exponential Nonlinearities*
ROLE	Principal Investigator
SAPIENZA AWARD 2015	*Nonlinear PDES: qualitative analysis of solutions*
ROLE	Participant (PI: Massimo Grossi)
GNAMPA 2014	*Blow up phenomena for semilinear parabolic problems*
ROLE	Principal Investigator
PRIN 2012	*Variational and perturbation aspect of nonlinear differential problems*
ROLE	Participant (PI: Susanna Terracini)
PROGETTO ATENEO 2012	*Nonlinear differntial problems: existence and qualitative properties of solutions*
ROLE	Participant (PI: Filomena Pacella)
FIRB-IDEAS 2009-2013	*Analysis and Beyond*
ROLE	Participant (PI: Andrea Malchiodi)
PRIN 2009	*Nonlinear elliptic problems in the study of vortices and related topics*
ROLE	Participant (PI: Andrea Malchiodi)
INDAM GROUP	GNAMPA
ROLE	Participant, 2009-2015

Publications

AUTHORS	F. De Marchis, T. Ricciardi, R. Takahashi
TITLE	*Existence results for turbulent flows with arbitrary intensities,*
JOURNAL	in preparation.
AUTHORS	F. De Marchis, R. Lopez Soriano
TITLE	*Existence and non existence results on the singular Nirenberg problem,*
JOURNAL	submitted paper. arXiv:1507.08090v4
AUTHORS	F. De Marchis, I. Ianni, F. Pacella
TITLE	*Exact Morse index computation for radial nodal solutions of the Lane-Emden problem,*
JOURNAL	submitted paper. arXiv:1507.01360
AUTHORS	F. De Marchis, I. Ianni, F. Pacella
TITLE	*Morse index and sign changing bubble towers for Lane-Emden problems,*
JOURNAL	Ann. Mat. Pura Appl., online first November 2014, doi: 10.1007/s10231-014-0467-6.

AUTHORS	F. De Marchis, I. Ianni
TITLE	*Blow up of solutions of semilinear heat equations in non radial domains of $\mathbb{R}^2$*
JOURNAL	Discrete and Contin. Dyn. Systems - A, 35, n.3, (2015), pp. 891-907.
AUTHORS	F. De Marchis, I. Ianni, F. Pacella
TITLE	*Asymptotic analysis and sign changing bubble towers for Lane-Emden problems,*
JOURNAL	J. Eur. Math. Soc. 17, (2015), pp. 2037-2068.
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	Arch. Ration. Mech. Anal. 217, n.2, (2015), pp. 525-570.
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, Abstract and Applied Analysis, Annali della Scuola Normale Superiore di Pisa.

Invited talks

DATE	June 2016
PLACE	Institute Mittag-Leffler, Sweden
EVENT	*Geometric and Physical aspects of Trudinger-Moser type inequalities*

DATE	September 2015
PLACE	Siena, Italy
EVENT	*XX Congresso dell'Unione Matematica Italiana*
DATE	July 2015
PLACE	Lyon, France
EVENT	*Conference EquaDiff 2015*
DATE	March 2015
PLACE	Università degli Studi di Roma Sapienza
DATE	December 2014
PLACE	Venezia
EVENT	*Two-day meeting in honor of Antonio Ambrosetti*
DATE	November 2014
PLACE	University of Naples Federico II
DATE	October 2014
PLACE	University of Granada
DATE	July 2014
PLACE	Madrid
EVENT	*AIMS Conference Series on Dynamical Systems and Differential Equations. Special section: Recent trends in nonlinear Schrodinger systems*
DATE	March 2014
PLACE	University of Oxford
EVENT	Workshop *Women in Partial Differential Equations & Calculus of Variations*
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	School *Cocompact embeddings, profile decompositions, and their applications to PDE*
DATE	December 2011
PLACE	Università di Roma Tor Vergata
EVENT	Workshop *New entries at Tor Vergata 2011*
DATE	November 2011
PLACE	Pienza
EVENT	Workshop *Nonlinear Differential Equations*
DATE	May 2011
PLACE	Università degli Studi di Roma Sapienza

DATE	May 2010
PLACE	ULB, Bruxelles
EVENT	Spring School in *Nonlinear Partial Differential Equations*
DATE	October 2009
PLACE	CIRM, Luminy
EVENT	Workshop *Loss of compactness in nonlinear problem: new trends and applications*
DATE	August 2009
PLACE	SMI, Cortona
EVENT	Summer school in *Geometric Aspects in Non-Linear Analysis*
DATE	May 2009
PLACE	Centro De Giorgi, Pisa
EVENT	Trimester on *Geometric Flows and Geometric Operators*

Posters

DATE	January 2011
PLACE	Istituto Canossiano, Venezia
EVENT	*Variational and perturbative methods for nonlinear differential equations*
DATE	March 2009
PLACE	CIRM, Luminy
EVENT	Workshop *Aspects géométriques des equations aux derivées partielles*

Teaching experiences

DATES	winter semester A.Y. 2015/2016
ASSIGNMENT	Teaching assistant for the course *Mathematical Analysis II*, Department of Mathematics, University of Rome Sapienza
DATES	winter semester A.Y. 2015/2016
ASSIGNMENT	Teaching assistant for the course *Mathematical Analysis I*, Faculty of Engineering, University of Rome Tor Vergata
DATES	September 2015
ASSIGNMENT	Precorso di Matematica, Faculty of Architecture, University of Rome Sapienza
DATES	spring semester A.Y. 2014/2015
ASSIGNMENT	Teaching assistant for the course *Mathematical Analysis I*, Department of Mathematics, University of Rome Sapienza
DATES	winter semester A.Y. 2014/2015
ASSIGNMENT	Teaching assistant for the course *Mathematical Analysis I*, Faculty of Engineering, University of Rome Tor Vergata
DATES	September 2014
ASSIGNMENT	Precorso di Matematica, Faculty of Architecture, University of Rome Sapienza
DATES	winter semester A.Y. 2012/2013
ASSIGNMENT	Teaching assistant for the course *Mathematical Analysis II*, Department of Industrial Engineering, University of Rome Tor Vergata

Page 6 / 7 - Curriculum vitæ of
Francesca De Marchis
   October 13, 2015

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	spring semester A.Y. 2010/2011
ASSIGNMENT	Teaching assistant for the course *Algebra I*, Department of Mathematics, University of Rome Sapienza
DATES	November – December 2010
ASSIGNMENT	Minicourse of 4 seminars: *Some results on Liouville-type equations*, SISSA, Trieste
DATES	spring semester A.Y. 2009/2010
ASSIGNMENT	Teaching assistant for the course *Meccanica Analitica*, Department of Mathematics and Informatics, University of Trieste