LUIGI AMBROSIO
Scuola Normale Superiore
Piazza Cavalieri 7
56100 Pisa, ITALY
tel: +39 050 509255
fax: +39 050 563513
e-mail: luigi.ambrosio@sns.it

EDUCATION

Born in 1963 in ▮▮▮▮(CN), Italy

1985-1988	**Scuola Normale Superiore** Corso di Perfezionamento (PHD).
1981-1985	**Scuola Normale Superiore** Pisa, Italy.
1981-1985	**Laurea in Matematica (B.S.)** University of Pisa, Italy. Summa cum laude. Advisor: Prof. Ennio De Giorgi. Thesis in semicontinuity and relaxation of integral functionals defined on Sobolev spaces.

PROFESSIONAL EXPERIENCE

1997–present	**Full Professor** Scuola Normale Superiore, Pisa, Italy.
1995–1997	**Full Professor** Department of Mathematics, University of Pavia, Italy.
1994–1995	**Full Professor** University of Benevento, Italy.
1992–1994	**Associate Professor** University of Pisa, Italy.
1988-1992	**Research Assistant** Second University of Rome, Italy.

HONORS

Long term visiting scientist in the Max Planck Institute of Leipzig, the Massachussets Institut of Technology, the ETH of Zurich, the Institute Henri Poincaré

1991 "Bortolozzi" Prize of Unione Matematica Italiana.

1996 National Prize for Mathematics and Mechanics of the italian Minister of Education.

1996 Invited speaker at the 2nd European congress of mathematicians in Budapest.

1999 "Caccioppoli" Prize of the Unione Matematica Italiana.

1999 Editor of "Interfaces and Free Boundaries", Main Editor of the "Journal of the European Mathematical Society" until 2011

2000 Editor of "Archive for Rational Mechanics and Analysis" until 2011.

2002 Invited speaker at the International Congress of Mathematicians in Beijing, in the PDE session

2003 Awarded with the international Fermat Prize of the University of Toulouse (France)

2003 Member of the scientific committee of the fourth European Congress of Mathematics

2005 Managing Editor of "Calculus of Variations and Partial Differential Equations"

2005 Editor of Communications in Partial Differential Equations

2005 Socio Corrispondente Accademia Nazionale dei Lincei, Roma

2006 Socio Corrispondente Istituto Lombardo, Accademia di Scienze e Lettere, Milano

2006 Editor of Mathematical Models and Methods in Applied Sciences

2007 His paper on flows associated to BV vector fields described in the séminaire Bourbaki, exposé 972

2008 Plenary speaker at the fifth European Congress of Mathematics in Amsterdam

2009 Member of the selection committee for the ICM 2010, PDE session

2011 Editor of Geometric and Functional Analysis.

2013 His papers on gradient flows described in the séminaire Bourbaki, exposé 1065

2013 Member of Academia Europaea

2013 Member of the IMU committee for the Fields Medals 2014

2015 Invited speaker at the Séminaire N.Bourbaki

2015 Awarded with the Gold medal for achievements in Mathematics, by the XL National Academy of Sciences, Italy

2015 PhD honoris causa awarded by the ENS Lyon

2015 Member of the Editorial Board of the series "Progress in Nonlinear PDE"

2015-16 Member of the committee of the Abel Prize in Mathematics

2018 Plenary speaker at ICM in Rio de Janeiro

2018 Member of the Editorial Board of Pure and Applied Functional Analysis

2019 Member of the scientific committee of the VIII European Meeting of Mathematics

2019-2022 Member at large of the Executive Committee of the International Mathematical Union

2019 Awarded with the Blaise Pascal medal of the European Academy of Sciences.

2019 Elected Director of the Scuola Normale Superiore, with a 6 years mandate.

2019 Awarded with the Balzan Prize for the achievements in the theory of partial differential equations.

2020 Member of the committee for the International Shaw Prize in Mathematics.

2022 Awarded with the Riemann prize of the Riemann International Mathematics School.

MAIN PUBLICATIONS

[1]   *Existence theory for a new class of variational problems*, Archive for Rational Mechanics & Analysis, **111**, 291–322, 1990.

[2]   *Approximation of functionals depending on jumps by elliptic functionals via Γ-convergence* (with V.M.Tortorelli), Communications on Pure and Applied Mathematics, **43**, 999–1036, 1990.

[3]   *On the propagation of singularities of semi-convex functions* (with P.Cannarsa, H.M.Soner), Ann. Sc. Norm. Sup., **20**, 597–616, 1993.

[4]   *A level set approach for the evolution of surfaces of any codimension* (with H.M.Soner), J. Diff. Geom. **43** (1996), 693–737.

[5]   *Currents in metric spaces.* (with B.Kirchheim) Acta Mathematica, **185** (2000), 1–80.

[6]   *Semilinear Elliptic equations in $\mathbf{R}^3$ and a conjecture of De Giorgi.* (with X.Cabré) Journal of the AMS, **13** (2000), 725–739.

[7]   *Transport equation and Cauchy probem for BV vector fields.* Inventiones Mathematicae, **158** (2004), 227–260.

[8]   *Calculus and heat flow in metric measure spaces and applications to spaces with ricci bounds from below.* (with N.Gigli, G.Savaré) Inventiones Mathematicae, **195** (2014), 289–391.

[9]   *Metric measure spaces with Riemannian Ricci bounds from below.* (with N.Gigli, G.Savaré) Duke Math. J., **163** (2014), 1405–1490.

[10]   *Bakry-Émery curvature-dimension condition and Riemannian Ricci curvature bounds.* (with N.Gigli, G.Savaré) Annals of Probability, **43** (2015), 339–404.

TEACHING ACTIVITY

Has been teaching courses on Γ-convergence, Measure Theory, Elementary Probability, Non Linear PDE's, BV functions, Minimal Surfaces and Geometric, Measure Theory, Functional Analysis, Viscosity solutions, Calculus of Variations, Optimal Mass Transportation.

RESEARCH TRAINING

Undegraduate theses: Carlo Mantegazza, Riccardo Scopigno, Matteo Novaga, Mario Romeo, Camillo De Lellis, Aldo Pratelli, Vito Iacovino, Nicola Gigli, Davide Vittone, Gianluca Crippa, Alessio Figalli, Francesco Ghiraldin, Costante Bellettini, Pietro Siorpaes, Eris Runa, Matteo Scienza, Francesco Ghiraldin, Mirchea Petrache, Alessandro Carlotto, Eris Runa, Gennady Uraltsev, Simone Di Marino, Federico Stra, Roberto Da Luiso, Daniele Semola, Elia Brué Gioacchino Antonelli, Alessandro Pigati, Claudio Afeltra, Lorenzo Portinale, Federico Franceschini, Simone Floreani, Federico Glaudo, Davide Carazzato, Mattia Magnabosco, Edoardo Siniscalco, Giacomo Colombo, Alessandro Pinzi,

PhD theses (advisor):
1999. Francois Ebobisse
2002. Matteo Focardi, Camillo De Lellis, Valentino Magnani
2003. Aldo Pratelli
2006. Stefania Maniglia, Davide Vittone
2007. Alessio Figalli
2008. Gianluca Crippa, Nicola Gigli
2009. Edoardo Mainini
2012. Francesco Ghiraldin, Guido De Philippis
2013. Nicolas Bonnotte
2014. Simone Di Marino, Dario Trevisan, Carlo Mantegazza
2015. Maria Colombo
2018. Federico Stra, David Tewodrose
2020. Giovanni Comi, Giorgio Stefani, Elia Brué, Daniele Semola
2022. Gioacchino Antonelli.