

CURRICULUM VITAE
DANIELE ANDREUCCI

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Education.

<i>Institution</i>	<i>Degree</i>	<i>Year</i>	<i>Field of study</i>
University of Firenze (Italy)	Laurea	1982	Mathematics
University of Firenze (Italy)	Doctorate	1989	Mathematics
Northwestern University (U.S.A.)	PhD	1990	Mathematics

Thesis Advisor

Doctorate: M. Primicerio, University of Florence (Italy).

Ph.D.: E. DiBenedetto, Northwestern University (U.S.A.).

Experience.

<i>Position</i>	<i>Institution</i>	<i>Years</i>
Various scholarships		1983–1990
Researcher	University of Firenze (Italy)	1990–1992
Associate professor	University Sapienza of Roma (Italy)	1992–2000
Full professor	University Sapienza of Roma (Italy)	2000–now

Main scientific interests. I have worked mostly in the field of evolutive partial differential equations, in general of parabolic type.

A non-exhaustive list of past and present scientific interests follows.

Nonlinear degenerate diffusion equations: blow up problems; asymptotic bounds for solutions; links between geometry of domains and behavior of solutions.

Free boundary problems: problems of change of phase; problems in fluid dynamics.

Mathematical problems in biology: phototransduction in retina cells; conduction of electrical currents in biological tissues; transport of ions through cell membranes.

Diffusion in inhomogeneous media.

Control of the wave equation with alternating in time controls.

Teaching. Undergraduate or master level:

<i>Course</i>	<i>Institution</i>	<i>Years</i>
Rational Mechanics (support)	University of Firenze (Italy)	90–92
Calculus I, II	University Sapienza of Roma (Italy)	92–03, 10–12, 15–now
Rational Mechanics	University Sapienza of Roma (Italy)	04–10, 13–now
Partial Differential Equations	University Sapienza of Roma (Italy)	02–now

Graduate level:

<i>Course</i>	<i>Institution</i>	<i>Years</i>
Reaction Diffusion Problems	School Math. Phys., Ravello (Italy)	2003
Degenerate Parabolic Eqns	University of Firenze (Italy)	2010
Free Boundary Problems	University Sapienza of Roma (Italy)	2001, 2011
Partial Differential Eqns	University Sapienza of Roma (Italy)	2004, 05, 09, 13, 14, 15.

Graduate Students

Dario Bellaveglia, 2010 University Sapienza of Roma.

Memberships of Scientific Societies.

- Italian Mathematical Union (UMI)
- European Mathematical Society.
- American Mathematical Society.
- Italian National Group for Mathematical Physics (GNFM-INdAM).

Other

- Member of the Faculty Committee of the Doctorate program ‘Mathematics for Engineering, Electromagnetics and Nanosciences’, University Sapienza of Roma, and Coordinator 2013–2017.
- Head of Department (Dip. di Metodi e Modelli Matematici) 2009-2010.
- Editor of
 - Differential and Integral Equations
 - Rendiconti di Matematica
- Responsible of a local research unit for the projects:
 - PRIN2006 ‘Mathematics of processes of growth and transport in biomedical and industrial applications’.
 - PRIN2008 ‘Mathematical models for systems with many components in medical and environmental sciences’.

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- [3] Daniele Andreucci. Esistenza di soluzioni locali e dipendenza continua dai dati per un problema a frontiera libera in simmetria cilindrica. *Bollettino U.M.I. Suppl. Fisica Matematica*, 5:61–69, 1986. Zanichelli, Bologna.
- [4] Daniele Andreucci and Riccardo Ricci. A free boundary problem arising from sorption of solvents in glassy polymers. *Quarterly of Applied Mathematics*, 44:649–657, 1987. American Math. Soc., Providence RI, U.S.A.
- [5] Daniele Andreucci. Regioni mushy in problemi di cambiamento di fase. *Tesi di Dottorato*, 1988. Firenze.
- [6] Daniele Andreucci. Existence and uniqueness of solutions to a concentrated capacity problem with change of phase. *European Journal of Applied Mathematics*, 1:339–351, 1990. Cambridge Univ. press, Cambridge (Gran Bretagna).

- [7] Daniele Andreucci and Emmanuele DiBenedetto. A new approach to initial traces in nonlinear filtration. *Annales Institut H. Poincaré Analyse non Linéaire*, 7:305–334, 1990.
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- [9] Daniele Andreucci and Emmanuele DiBenedetto. On the Cauchy problem and initial traces for a class of evolution equations with strongly nonlinear sources. *Annali Sc. Normale Sup. Pisa*, 18:363–441, 1991.
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- [11] Daniele Andreucci. New results on the Cauchy problem for parabolic systems and equations with strongly nonlinear sources. *Manuscripta Mathematica*, 77:127–159, 1992. Springer, Berlino (Germania).
- [12] Daniele Andreucci and Emmanuele DiBenedetto. Weak solutions of equations of the type of non stationary filtration. *Nonlinear Analysis TMA*, 19:29–41, 1992. Elsevier, Oxford (Gran Bretagna).
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- [14] Daniele Andreucci. Behaviour of mushy regions under the action of a volumetric heat source. *Mathematical Methods in the Applied Sciences*, 16:35–47, 1993. Wiley-Teubner, Stoccarda (Germania).
- [15] Daniele Andreucci, Lea Borrelli, Vincenzo Capasso, Peng Li, and Mario Primicerio. Polymer crystallization kinetics: The effect of impingement. *Math. Engng in Industry*, 4:249–263, 1993. VSP, Zeist (Paesi Bassi).
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