

CURRICULUM VITAE OF LUIGI PREZIOSI

Born: Naples, October 2nd, 1961.

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DEGREES

- **laurea in Mathematics cum laude at the University of Naples (Italy)**
earned on July 24th, 1984 with a thesis on “Instability problems in the interaction between magnetic field and convection” (Prof. G. P. Galdi)
- **Ph.D. in Mechanics with Minor in Mathematics at the University of Minnesota (USA)**
earned on December 31th, 1986 with a thesis on “Selected topics in the mechanics of two fluids and viscoelastic media” (Prof. D. D. Joseph).
- **Ph. D. in Mathematics at the University of Naples (Italy)**
earned on October 31th, 1989 with a thesis on “Non linear stability methods in non-Newtonian fluid mechanics” (Prof. S. Rionero).

UNIVERSITY POSITIONS

- **1984–1986: Research/Teaching Assistant**
in Mechanics and Fluid Mechanics at the University of Minnesota (U.S.A.)
- **1989–1992: Researcher**
in Mathematical Physics at the Politecnico di Torino (Italy)
- **1992-2000: Associate professor**
in Mathematical Physics at the Università della Calabria and at the Politecnico di Torino (Italy)
- **Since 2000: Full professor**
in Mathematical Physics at the Politecnico di Torino (Italy).
- **Since 2007: President of the degree in Mathematics for the Engineering Sciences**

AWARDS, CONSULTING, BOARDS

- **Consultant on “Metal casting”**
at the Dept. Aerospace Engineering and Mechanics, University of Minnesota (U.S.A.) in 1987.
- **IMA fellowship and consultant on “Lubricated pipelining problems”**
at the Institute for Mathematics and Application, University of Minnesota (U.S.A.) in 1989.
- **MSI award at the Minnesota Supercomputer Institute**
in 1994.
- **Contact Person of the Research Training Networks on Cancer Modelling**
from 2000 to 2008.
- **Consultant on “Crowd Dynamics and Security”**
for the Institute for the Innovation and the Territorial Systems (SITI) from 2005 to 2006.
- **Consultant for RGI for the definition of the Research and Development plan in the field of bio-informatics** from 2007

Member of the following scientific societies:

- European Society for Mathematical and Theoretical Biology (ESMTB)
- Society for Mathematical Biology (SMB)
- Society for Industrial and Applied Mathematics (SIAM)
- Centro Italiano di Matematica Applicata alla Biologia (CIMAB)
- Gruppo Nazionale di Fisica Matematica (GNFM)
- Unione Matematica Italiana (UMI)
- Società Italiana di Matematica Applicata ed Industriale (SIMAI)
- Federazione Italiana di Matematica Applicata (FIMA)

Member of the Board of the European Society for Mathematical and Theoretical Biology (ESMTB) from 2002 to 2008.

Member of the Scientific Boards of the following societies

- Centro Italiano di Matematica Applicata alla Biologia (CIMAB) since 2006
- Gruppo Nazionale di Fisica Matematica since 2008

Associate Editor of the international journals:

- Journal of Theoretical Biology
- Mechanics of Multi-component Materials
- Mathematical Modelling of Natural Phenomena
- Networks and Heterogeneous Media
- Bollettino dell'Unione Matematica Italiana B

Member of the Advisory Editorial Board of the Birkhauser series on Modeling and Simulation in Science, Engineering and Technology

MAIN PLENARY TALKS

ECMI 2002 Congress of the European Consortium of Mathematics for Industry, Latvia

UMI 2003 Congresso dell'Unione Matematica Italiana, Milano

Final RTN Congress on "Linking mathematical and biological models in cancer research", Magdeburg (2003)

ESMTB 2008 Congress of the European Society for Mathematical and Theoretical Biology, Edinburgh (2008)

RESEARCH INTERESTS

The scientific activity is essentially devoted to the different aspects of mathematical modelling, from the formulation of the model, to its analytic study, simulation and validation.

He has written over 90 articles published on international journals on the following topics

- Flow and stability of immiscible liquids
- Flow and stability of non-Newtonian fluids
- Hyperbolic models in heat conduction
- Kinetic models in gas-dynamics
- Multiphase systems and deformable porous media
- Modeling composite material manufacturing processes
- Soil and avalanche mechanics
- Mathematical models of tumour growth
- Mechanics of tissues
- Cell matrix interactions

He has written the following books

- R. Monaco and L. Preziosi, Fluid Dynamic Applications of the Discrete Boltzmann Equation, World Scientific, 1991.
- N. Bellomo and L. Preziosi, Modelling, Mathematical Methods, and Scientific Computation, CRC Press, (1995).
- N. Bellomo, L. Preziosi and A. Romano, Mechanics and Dynamical Systems with Mathematica, Birkhauser, (2000).

and edited the following volumes

- K. Markov and L. Preziosi, Eds., Heterogeneous Solids: Micromechanics, Modelling, Methods, and Simulations, Birkh user, Boston, (2000).
- L. Preziosi, Ed., Cancer Modelling and Simulation, Chapman & Hall/CRC Press, (2003).
- F. Mollica, L. Preziosi and K.R. Rajagopal, Eds., Modelling of Biological Materials, Birkhauser (2007).
- A. Chauviere, L. Preziosi and C. Verdier, Multiscale Views of Cell Mechanics, Chapman & Hall/CRC Press, (2009).

He also devised and licenced (U. S. Patent 4644782) the **spinning rod tensiometer**, an instrument to measure the interfacial tension between immiscible liquids.

A complete list of references can be recovered in the file Article.pdf