

## Paolo Biscari (Curriculum Vitae et Studiorum)

- 1964 Born in Madrid (Spain) on August 18<sup>th</sup>
- 1988 Degree in Physics, Scuola Normale Superiore, Pisa
- 1988 Degree in Physics, University of Pisa, summa cum laude
- 1993 Ph.D. in Physics, Scuola Normale Superiore, Pisa
- 1993-1995 Post-Doc Researcher, Dept. Math., Pisa
- 1995-2002 Assistant professor in Mathematical Physics, Dept. Math, Politecnico di Milano
- 2002-2005 Associate professor in Mathematical Physics, Dept. Math, Politecnico di Milano
- 2004 Earned the *Bruno Finzi Price* for Research in Applied Mechanics, awarded by the Istituto Lombardo, Accademia di Scienze e Lettere, Milan (Italy)
- 2005-present Full professor in Mathematical Physics, Dept. Math., Politecnico di Milano

### Elective offices

Head of the Ph.D. Program *Mathematical Methods and Models in Engineering*, Politecnico di Milano (2008-present)

Member of the Steering Committee of the PhD School of the Politecnico di Milano (2010-present)

Vice-Director of *Il Nuovo Cimento B* (2010)

Editor of the *European Physical Journal Plus* (2011-present)

Editor of the Springer Series *Unitext* (2007-present)

Member of the Managing Board of the *Milan Journal of Mathematics*(2004-present)

Member of the Board of Directors, *Seminario Matematico e Fisico di Milano* (2002-present)

### Scientific Activity

Paolo Biscari is author or co-author of approx. 50 papers published in international peer-reviewed journals. He presented his results in approx. 40 national and international conferences as invited lecturer. He is the reviewer for the NSF programs, and approx 20 international journals in statistical physics, mathematical physics, and biomathematics. His research activity mainly deals with the mathematical modeling in soft matter systems, including liquid crystals, biological membranes, and biological tissues. (ISI H-index: 9)

### Selected recent publications

1. P. Biscari, C. Lelli: *Spike transitions in the FitzHugh-Nagumo model*. Eur. Phys. J. Plus **126** (2011), #17
2. P. Biscari, T.J. Sluckin: *A perturbative approach to the backflow dynamics of nematic defects*. Euro. J. Appl.Math., (2011) Available online doi:10.1017/S0956792510000343
3. P. Biscari, C. Omati: *Stability of generalized Knowles solids*. IMA Journal of Appl. Math. **75** (2010), 479-491
4. P. Biscari, G. Napoli: *Axial-symmetry breaking in constrained membranes*. Phil. Trans. Roy. Soc. A **367** (2009), 3363-3378
5. P. Biscari, M.C. Calderer, E.M. Terentjev: *Landau-de Gennes theory of isotropic-nematic-smectic liquid crystal transitions*. Phys. Rev. E **75** (2007), # 051707
6. P. Biscari, S. Turzi: *Boundary-roughness effects in nematic liquid crystals*. SIAM J. Appl. Math. **67** (2006), 447-463
7. P. Biscari, E.M. Terentjev: *Nematic membranes: Shape instabilities of closed achiral vesicles*. Phys. Rev. E **73** (2006), # 051706
8. P. Biscari, T.J. Sluckin: *Field-induced motion of nematic disclinations*. SIAM J. Appl. Math. **65** (2005), 2141-2157
9. P. Biscari, M.C. Calderer: *Telephone-cord instabilities in thin smectic capillaries*. Phys. Rev. E **71** (2005), # 051701
10. P. Biscari, S.M. Canevese, G. Napoli: *Impermeability effects in three-dimensional vesicles*. J. Phys. A **37** (2004), 6859-6874.