

Lecturers' profiles



Eleuterio F. Toro

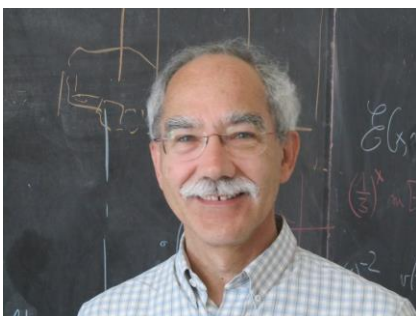
Eleuterio F. Toro is full professor of numerical analysis at the University of Trento, Italy, since 2002. His academic qualifications include BSc honours in pure mathematics (UK, 1977); Master in functional analysis and differential equations (UK, 1978); PhD in computational mathematics (UK, 1982). Distinctions awarded include: Honorary title OBE (Officer of the Order of the British Empire, UK, 2000); Fellow of the Society for Shock Wave Research (India, 2005); Doctor Honoris Causa (Universidad de Santiago de Chile, 2008). Previous appointments include: "EPSRC Senior Research Fellow", University of Cambridge, UK. Full professor of applied mathematics at the Manchester Metropolitan University, UK.

Research interests include: numerical methods for partial differential equations of the advection-reaction-diffusion type, with application to medical, environmental, industrial and scientific problems. Professor Toro is author of two books on numerical methods for partial differential equations for researchers. In addition, he is editor of two books on numerical methods and applications. He is also author of numerous articles and other publications.

Personal webpage: <http://www.ing.unitn.it/~toroe/>

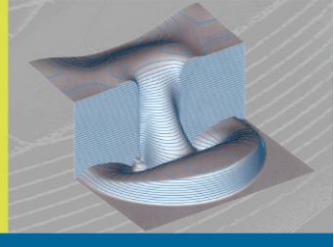
Latest publications:

- E. Romenski, D. Drikakis, E. F. Toro, "**Conservative Models and Numerical Methods for Compressible Two-Phase Flow**" in JOURNAL OF SCIENTIFIC COMPUTING, v. 42, n. 2 (2010), p. 68-95
- M. Dumbser, A. Hidalgo, M. Castro, C. Pares, E. F. Toro, "**FORCE Schemes on Unstructured Meshes II: Non-Conservative Hyperbolic Systems**" in COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, v. 199, n. 9-12 (2010), p. 625-647
- S.A. Tokareva, E. F. Toro, "**HLLC-type Riemann solver for the Baer-Nunziato equations of compressible two-phase flow**" in JOURNAL OF COMPUTATIONAL PHYSICS, v. 229, n. 10 (2010), p. 3573-3604



Alberto Valli

Alberto Valli is full professor of mathematical analysis at the University of Trento, Italy, since 1987. He has been assistant professor and then associate professor at the same University, senior fellow at the University of Minnesota, Minneapolis (U.S.A.), visiting professor at the University of Paris Sud (France), at the Univer-



sity of Karlsruhe (Germany), and at the Ecole Polytechnique Federale of Lausanne (Switzerland). His scientific interests are: numerical approximation of partial differential equations (especially in fluid dynamics and electromagnetism), finite element methods, domain decomposition methods.

Personal webpage: <http://www.science.unitn.it/~valli/>

Latest publications:

- Alonso Rodriguez A., Camaño J., Valli A., **"Inverse source problems for eddy current equations"**, *Inverse Problems*, 2012, v. 28, 015006 (15pp).
- Valli A., **"Solving an electrostatics-like problem with a current dipole source by means of the duality method"**, *Appl. Math. Lett.*, 2011, doi:10.1016/j.aml.2011.12.013
- Alonso Rodriguez A., Valli A., **"Eddy Current Approximation of Maxwell Equations"**, Milan: Springer-Verlag Italia, 2010, p. XIV+347.



Ana Alonso Rodriguez

Ana Alonso Rodriguez is associate professor of numerical analysis at the University of Trento, Italy. She obtained her PhD in Applied Mathematics from the Universidad Complutense de Madrid (Spain) in 1993, and has been assistant professor at the Department of Applied Mathematics of the Universidad Complutense de Madrid, at the University of Milan (Italy) and at the

University of Trento. Her research interests are mainly focused on numerical approximation of partial differential equations, computational electromagnetism, finite element methods, domain decomposition methods and inverse problems.

Personal webpage: <http://www.science.unitn.it/~alonso/>

Latest publications:

- Alonso Rodriguez A., Camaño J., Valli A., **"Inverse source problems for eddy current equations"**, *Inverse Problems*, 2012, v. 28, 015006 (15pp).
- Alonso Rodriguez A., **"Formulation via vector potentials of eddy-current problems with voltage or current excitation"**, *Comm. Appl. Industrial Math.*, 2011, doi: 10.1685/journal.caim.369
- Alonso Rodriguez A., Valli A., **"Eddy Current Approximation of Maxwell Equations"**, Milan: Springer-Verlag Italia, 2010, p. XIV+347.