

## Antonio Rodríguez-Ferran

Department of Applied Mathematics  
Civil Engineering School of Barcelona  
Universitat Politècnica de Catalunya - BarcelonaTech  
Jordi Girona, 1 Edifici C2 - Campus Nord UPC  
E-08034 Barcelona, Spain

Phone: +34 93 401 56 97  
e-mail: antonio.rodriguez-ferran@upc.edu

---

### **Current position**

Full professor of Applied Mathematics, Universitat Politècnica de Catalunya

---

### **Education**

B.Sc., M.Sc. Civil Engineering (Ingeniero de Caminos, Canales y Puertos), UPC 1990  
Ph.D. Civil Engineering (Doctor Ingeniero de Caminos), UPC 1996

---

### **Research interests**

Computational methods in applied sciences and engineering  
Nonlinear solid mechanics (material failure, damage, plasticity)  
Modelling of acoustics and vibrations  
Numerical methods for linear and nonlinear systems of equations

---

### **Career**

Full professor, UPC, since 2010  
Associate professor, UPC, 1998-2010  
Assistant professor, UPC, 1993-1998  
Lecturer, UPC, 1991-1993  
Research assistant, Centre d'Etudes Nucléaires de Saclay (France), 1992

---

### **Professional activities**

#### *Referee for:*

Advances in Engineering Software; Applied Numerical Mathematics; Building and Environment; Computer Methods in Applied Mechanics and Engineering; Computers and Concrete; Computers and Geotechnics; Computers and Structures; Engineering and Computational Mechanics; European Journal of Environmental and Civil Engineering; Granular Matter; International Journal for Numerical and Analytical Methods in Geomechanics; International Journal for Numerical Methods in Engineering; International Journal of Non-Linear Mechanics; International Journal of Solids and Structures; International Journal of Computational Mathematics; Journal of Computational and Applied Mathematics; Journal of Mechanics of Materials and Structures; Journal of Zhejiang University-SCIENCE A; Revista Internacional de Métodos Numéricos en Ingeniería (RIMNI); SIAM Journal on Numerical Analysis; Structural Engineering and Mechanics

#### *Community services*

Secretary of the Sociedad Española de Métodos Numéricos en Ingeniería, 2003-2010  
Member of the Executive Board of SEMNI, since 2003

#### *University services*

Vice-Dean of Research of the Facultat de Matemàtiques i Estadística, 2009-2012  
Director, Master in Advanced Mathematics and Mathematical Engineering, 2010-2012  
Director, Master in Applied Mathematics, 2007-2010  
Coordinator of the PhD Program in Applied Mathematics, 2007-2012  
Member of the Doctoral Committee of the Universitat Politècnica de Catalunya, 2002-2006  
Member of the Committee of the Doctoral Program in Applied Mathematics, 2000-2006

## ***Summary of journal publications***

---

<b>Journal</b>	<b># papers</b>
International Journal for Numerical Methods in Engineering	10
Thin-Walled Structures	4
Computer Methods in Applied Mechanics and Engineering	3
International Journal of Solids and Structures	2
Journal of Sound and Vibration	1
Other SCI journals	16

## ***Five representative publications***

---

Hetherington, J.; Rodriguez-Ferran, A.; Askes, H. "A new bipenalty formulation for ensuring time step stability in time domain computational dynamics", *International Journal For Numerical Methods in Engineering* 90, 2012

Diaz-Cereceda, C.; Hetherington, J.; Poblet-Puig, J.; Rodriguez-Ferran, A. "A deterministic model of impact noise transmission through structural connections based on modal analysis", *Journal of Sound and Vibration* 330, 2011

Pastor, N.; Rodriguez-Ferran, A., "Hysteretic modelling of x-braced shear walls", *Thin-Walled Structures* 43, 2005

Rodriguez-Ferran, A; Perez-Foguet, A; Huerta, A "Arbitrary Lagrangian-Eulerian (ALE) formulation for hyperelastoplasticity", *International Journal For Numerical Methods in Engineering* 53, 2002

Rodriguez-Ferran, A.; Huerta, A. "Error estimation and adaptivity for nonlocal damage models", *International Journal of Solids and Structures* 37, 2000

## ***Other relevant information***

---

*Organizing committee of:*

Congreso de Métodos Numéricos en Ingeniería 2005 (Granada, Spain)

Congresso de Métodos Numéricos em Engenharia 2007 (Porto, Portugal)

Congreso de Métodos Numéricos en Ingeniería 2009 (Barcelona, Spain)

Congresso de Métodos Numéricos em Engenharia 2011 (Coimbra, Portugal)