Pedro Díez

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Department of Applied Mathematics
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Current position

Associate professor of Applied Mathematics, Universitat Politècnica de Catalunya (UPC)

Education

Civil Engineering, Escola Tècnica Superior d'Enginyers de Camins, Canals i Ports de Barcelona (1990)
Ph. D. Universitat Politècnica de Catalunya (1996)

Research interests

Computational methods in applied sciences and engineering.
Error estimation and adaptivity
Finite elements, nonlinear computational mechanics.

Career

Vice-Director, Department of Applied Mathematics III, UPC (since February 2004)
Visiting Professor, École Nationale Supérieure de Cachan, 2004
Visiting Scientist, Ispra, European Communities Commission, 2001
Vice-Dean, Escola Tècnica Superior d'Enginyers de Camins, Canals i Ports, UPC (1997-2001)
Associate professor of Applied Mathematics, Universitat Politècnica de Catalunya, since 1999
Assistant Professor, UPC, 1993-1999
Lecturer, UPC, 1990-1993

Honors and awards

Extraordinary doctorate award, Universitat Politècnica de Catalunya, 1997

Professional activities

Community services

Secretary of the European Community on COmputational Methods in Applied Sciences (ECCOMAS), since 2001

University services

Member of the Senate of the Universitat Politècnica de Catalunya, since 2001
Member of the Committee of the Doctoral Program in Civil Engineering, since 2004

Summary of journal publications

Journal	Impact factor	Number of papers
Computer Methods in Applied Mechanics and Engineering	1.252	4
International Journal for Numerical Methods in Engineering	1.691	2
Mathematical Models and Methods in Applied Sciences	1.304	1
Other indexed journals		4
Other papers in refereed journals		7

Selected publications (max. 5)

P. Díez, J.J. Egozcue and A. Huerta, "A posteriori error estimation for standard finite element analysis", Computer Methods in Applied Mechanics and Engineering, 163, 1998 (13 times cited)

P. Díez and A. Huerta, "A unified approach to remeshing strategies for finite element h-adaptivity", Computer Methods in Applied Mechanics and Engineering, 176, 1999 (15 times cited)

A. Huerta, A. Rodríguez-Ferran, P. Díez and J. Sarrate, "Adaptive finite element strategies based on error assessment", International Journal for Numerical Methods in Engineering, 46, 1999 (15 times cited)

P. Díez, M. Arroyo and A. Huerta, "Adaptivity based on error estimation for viscoplastic softening materials", Mechanics of Cohesive-Frictional Materials 5, 2000 (16 times cited)

A. Huerta and P. Díez, "Error estimation including pollution assessment for nonlinear finite element analysis", Computer Methods in Applied Mechanics and Engineering, 181, 2000 (9 times cited)

Other relevant information

Conference chairmanship

Second International Conference on Adaptive Modeling and Simulation (ADMOS), Barcelona Setember 8-10, 2005 (co-chairman: N-E Wiberg)

First International Conference on Adaptive Modeling and Simulation (ADMOS), Chalmers University of Technology, Goteborg (Sweden), Setember 29-October 1, 2003 (co-chairman: N-E Wiberg)

Error Assessment and Adaptivity in Finite Elements: Quality control of engineering outputs and complex problems, European Workshop on Computational Mechanics, Barcelona, March 29-30, 2001
(co-chairman: Ph. Bouillard)

Conference committees:

Scientific committee

   4th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS), 2002
   7th International Conference on Computational Plasticity (COMPLAS), 2003
   3rd and 4th ECCOMAS Congresses on Numerical Methods in Engineering, 2000 and 2004
   4th, 5th, 6th and 7th "Congreso de Métodos Numéricos en Ingeniería" 1999 , 2002, 2004, and 2005

Organizing committee

   2nd European conference on Computacional Solid and Structural Mechanics 2006 (Lisbon)

Editorial works

N.-E. Wiberg and P. Díez, Proceedings of the first International Conference on Adaptive Modeling and Simulation. CIMNE (2003) ISBN: 84-95999-30-7

N.-E. Wiberg and P. Díez, Special issue on "Adaptive Modeling and Simulation", *Computer Methods in Applied Mechanics and Engineering* (in press)

Referee

Computer Methods in Applied Mechanics and Engineering, International Journal for Numerical Methods in Engineering, Mathematical Models and Methods in Applied Sciences, Finite Elements in Analysis and Design.