Miguel Cervera

Department of Strength of Materials and Structural Analysis
in Engineering
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Current position

Full professor of Continuum Mechanics and Structural Analysis, Universitat Politècnica de Catalunya

Education

Civil Engineering, Escola Tècnica Superior d'Enginyers de Camins, Canals i Ports de Barcelona (Spain) (1983)
Ph. D. in Civil Engineering, University of Wales (UK) (1986)

Research Interests

Computational methods in applied sciences and engineering.
Finite elements, nonlinear computational mechanics.
Simulation of industrial processes with emphasis on coupled problems.
Thermomechanical solution of casting and associated problems.

Career

Full professor, Universitat Politècnica de Catalunya, since 1999
Assistant Professor, Universitat Politècnica de Catalunya, 1988-99
Temporary Assistant Professor, Universitat Politècnica de Catalunya, 1987-88
Associate Scientist, C. Int. Métodos Numéricos en Ingeniería, since 1987
Research Staff, C. Int. Métodos Numéricos en Ingeniería, since 1986
PhD Fellowship, University of Wales (UK), 1983-86

Honors and awards

Fellowship from the Spanish Ministry of Education for young researchers (FPI), 1983-1985.
Fellowship from the University of Wales, 1985-1987.
Honorable Mention for the Award "City of Barcelona on Technological Research", 1998.
Member of the high-quality and stable research group on "Numerical Methods in Applied Sciences and Engineering", Generalitat de Catalunya, 1994-1995, 1996-1997,1998-1999, 2000-2001, 2002-2004.

Professional activities

Community services

Founder Member, Sociedad Española de Métodos Numéricos en Ingeniería (SEMNI), 1988.
Executive Committee, Sociedad Española de Métodos Numéricos en Ingeniería (SEMNI), since 1996.

University services

SubDirector for Infrastructures and Resources, ETS d'Enginyers de Camins, Canals i Ports de Barcelona, 1990-1991.
Head of Studies for Civil Engineering, ETS d'Enginyers de Camins, Canals i Ports de Barcelona, 1991-1994.
SubDirector for Academic Coordination, ETS d'Enginyers de Camins, Canals i Ports de Barcelona, 1994-1996.
Academic Secretary, ETS d'Enginyers de Camins, Canals i Ports de Barcelona, 1996-1997.

Summary of journal publications

Journal	Impact factor	Number of papers
International Journal of Plasticity	2,768	4
International Journal for Numerical Methods in Engineering	1,691	3
International Journal of Solids and Structures	1,327	1
Computer Methods in Applied Mechanics and Engineering	1,252	5
Other indexed journals		17
Other papers in refereed journals		7

Selected publications (max. 5)

Oñate E, Cervera M, Zienkiewicz OC, "A finite-volume format for structural mechanics". International Journal for Numerical Methods in Engineering 37 (2), 1994 (28 times cited)

Codina R, Oñate E, Cervera M, "The intrinsic time for the streamline upwind Petrov-Galerkin formulation using quadratic elements". Computer Methods in Applied Mechanics and Engineering 94 (2), 1992 (26 times cited)

Cervera M, Hinton E, Hassan O, "Nonlinear-analysis of reinforced-concrete plate and shell structures using 20-noded isoparametric brick elements". Computers and Structures 25 (6), 1987 (19 times cited)

Oliver J, Cervera M, Manzoli O, "Strong discontinuities and continuum plasticity models: the strong discontinuity approach". International Journal of Plasticity 15 (3), 1999 (17 times cited)

Cervera M, Oliver J, Faria R, "Seismic evaluation of concrete dams via continuum damage models". Earthquake Engineering and Structural Dynamics 24 (9), 1995 (17 times cited)

Other relevant information

Workshop and Conference Committees

Scientific Committee
- III, IV, V, VI, VII and VIII Int. Conferences on Computational Plasticity (1992, 1995, 1997, 2000, 2003, 2005)
- V RILEM Int. Symposium on Creep and Shrikage of Concrete (1993)
- VII Int. Symposium on Plasticity and its Current Applications (1998)
- ECCM´99 European Congress on Computational Mechanics (1999)
- European Congress on Computational Methods in Applied Sciences and Engineering (2004)
- Int. Conference on Computational Methods for Coupled Problems in Science and Engineering (2005)

Program Committee
- V, VI and VII Congreso de Métodos Numéricos en Ingeniería (2002, 2004, 2006)

Organizing Committee
- II Int. Conference on Computattional Plasticity (1989)
- IV World Congress on Computational Mechanics (1999)
- European Congress on Computational Methods in Applied Sciences and Engineering (2000)

Editorial Works

C. Agelet de Saracibar and M. Cervera. A Special Issue on "Numerical Simulation of Industrial Solidification Processes", International Journal of Plasticity (ISSN 0749-6419), Vol 17, Issue 12, (2001).