

Gilles Pijaudier-Cabot

R&DO – Institut GeM, Ecole Centrale de Nantes, 1 rue de la Noë, BP 92101, Nantes cedex 3, F-44321 France

Phone: +33 2 40 37 16 60

Fax: +33 2 40 37 25 35

e-mail: Gilles.Pijaudier-Cabot@ec-nantes.fr

Current position

Full Professor of Civil Engineering

Education

Ecole Normale Supérieure de Cachan (1980-1985) : Agrégation de Génie Civil, rank : 1st (1983), Doctorate degree (1985) ; Ph.D. Northwestern University (1987)

Research interests

Damage and fracture of cementitious materials, Failure analysis and strain localisation, Nonlocal modelling and localisation limiters, Durability mechanics of concrete structures (experimental & computational)

Career

Full professor at Ecole Centrale de Nantes (1999 -)

Full Professor at Ecole Normale Supérieure de Cachan (1992 – 1999)

Research scientist at CNRS (1988 – 1992)

Research associate, Rensselaer Polytechnic Institute (1987 – 1988)

Honors and awards

Bronze Medal Prize of CNRS (1991) Jean Mandel Prize from the French association of mechanics (1992)

Elected at Institut Universitaire de France (1996)

Young researcher French award (ACI Jeunes chercheurs) (1999)

Professional activities

Editorial boards

International Journal for Numerical and Analytical Methods in Geomechanics, John Wiley, 2001

Mechanics of Cohesive-frictional Materials, John Wiley & Sons, 1995 – 2000

Concrete Science and Engineering, 2001

Journal of Engineering Mechanics – ASCE, International correspondent for Europe, 2000

Journal of Engineering Mechanics – ASCE, Associate editor, 1997 – 1999

Revue Française de Génie Civil (Hermès Science Pub.), Associate editor 1996 – 2004

Community services

Member of ASCE committee on Properties of Materials, 1989 – 2000, 2002

Chairman of ASCE committee on Properties of Materials, 1997 – 1999

Senior member of RILEM, 2001

President of Int. Association for creep, shrinkage and durability mechanics of concrete and concrete structures (2003 – 2005)

University and governmental services

Deputy director for research at Ecole Centrale de Nantes (2003 -)

Head of the civil and environmental specialty at Ecole Centrale de Nantes (2002 – 2003)

Chairman of the national selection committee for the young researchers awards (2003 – 2004)

Advisor for engineering sciences to the director of research at the ministry of research (2001)

Vice-director of Physics and Engineering Sciences at the ministry of research (1998 - 2000)

Director of the national network of laboratories in Civil Engineering (1994 – 1998)

Summary of journal publications

Journal	Impact factor	Number of papers
Journal of Engineering Mechanics ASCE	0,719	12
Int. J. Num. Anal. Meth. In Geomechanics	0,594	8
Int. J. Solids and structures	1,327	4
Other indexed journals		28
Other papers in refereed journals		12

Selected publications (max. 5)

Nonlocal Damage Theory, G. PIJAUDIER-CABOT et Z.P. BAZANT. Journal of Engineering Mechanics, ASCE, Vol. 113, N° 10, pp. 1512-1533, 1987 (citations: 256)

Finite Element Analysis of Bifurcation in Nonlocal Strain Softening Solids, G. PIJAUDIER-CABOT et A. HUERTA. Comp. Meth. in Applied Mech. and Engrg., Vol. 90, pp. 905-919, 1991 (citations:)

Coupled Diffusion-Damage Modelling and the Implications on Failure Due to Strain-Softening, B. GERARD, G. PIJAUDIER-CABOT et C. LA BORDERIE, Int. J. Solids and Structures, Vol. 35, pp. 4107-4120, 1998

Discretisation Influence on Regularization by Two Localisation Limiters, A. HUERTA et G. PIJAUDIER-CABOT. J. of Engrg. Mech. ASCE, Vol. 120, pp. 1198-1218, 1994 (citations: 25)

Chemomechanical Effects in Mortar Beams Subjected to Water Hydrolysis, C. LE BELLEGO, B. GERARD et G. PIJAUDIER-CABOT, J. Engrg. Mech. ASCE, Vol. 126, pp. 266-272, 2000

Other relevant information

Over 1000 citations, editor of 9 books, 40 invited or keynote lectures at conferences

Guest editor of 5 special issues (Journal of Engineering Mechanics ASCE, Journal of Material Engineering ASCE, Int. J. Solids & Struct., Engineering Fracture Mechanics)

Member of the scientific committees of international conferences:

- Conferences on Fracture Mechanics of Concrete Structures (1992, 1995, 2004)
- Workshop on size effect in concrete structures, Sendai, Japon, 1993
- Int. Conferences on Concrete Creep and Shrinkage Con'Creep (1993, 2001)
- Euromech - Mecamat Conference on Materials with Internal Length and Generalised Continua, Magdebourg, Germany, 1998
- 4ème colloque national en calcul des structures, Giens, 1999
- 5th International Workshop on Bifurcation and Localisation in Soils and Rocks, Perth, Australia, 1999
- Nato Advanced Study on Fracture, France, 2000
 - European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS), (2000, 2004)
 - European Conference on Computational Mechanics, Krakow, Poland, 2001
 - Australian Conference on Geomechanics, Perth, Australia, 2002
 - Int. Conf. Computational Plasticity, Barcelone, Spain (2003, 2005)
 - European Conference on Computational Mechanics of Concrete Structures (Euro-C), St. Johan, Austria (2003, 2006)
 - International Conference on Advances in Concrete Structures (ICACS), Beijing, China, 2004
- co-Chairman of the workshop on Mechanics of Quasi-Brittle Materials and Structures (Prague, 1998), FRAMCOS VI (Cachan, 2001), NSF workshop on Model Based Simulations of Durability of Materials and Structures (Prague, 2002), Concreep 7 (Nantes 2005)
- President of the scientific committee of Oxand SA, Member of the scientific council of Hermès Science Pubs.