

Laurent GORNET

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Current position

Associate Professor of mechanical engineering, Ecole Centrale de Nantes

Education

Mechanical Engineering, Université Pierre et Marie Curie Paris 6, Ph.D. LMT UMR CNRS, Ecole Normale Supérieure de Cachan Paris 6 (France) (1996)

Research Interests

Computational methods in applied sciences and engineering.
Finite elements, nonlinear computational mechanics for carbon-fiber/epoxy-matrix composite structures and rubberlike materials
Research projects on life prediction of rubber materials for Trelleborg Company.
Research projects on composite sailing race boats for Gilles Ollier Design Team, Naval Architects, Multiplast
Research projects on composite sailing race boats for Marc Lombard, Naval Architect
Material and structure analysis of three maxi-Catamaran sistership, Club Med, innovation Explorer and Team adventure (Club Med winner of the race round the world in 2000, The Race)
Material and Structure analysis of Trimaran Banque Populaire, Third in the race Rhum 2000
Material and structure analysis of the maxi-Catamaran Orange II New Jules Verne record round the world (2005)

Career

Associate Professor of Mechanical Engineering, Ecole Centrale de Nantes, since 1997
Habilitation à diriger les recherches, Université Nantes (France), 2004,
lecturer, ENSIETA Brest military school, since 1999
lecturer, Université Pierre et Marie Curie Paris 6 (France), 1991-1995,
lecturer ENSTA Paris military school 1991-1995

Professional activities

Program Committee

ICCM 12(1999), JNC (2005)

Community services

Recruiting board of Ecole Centrale de Nantes (France) since 1999

University services

Member of council directors Ecole Centrale de Nantes (France) since 1999
China Recruiting board of Ecole Centrale intergroup (France) since 2002

Summary of journal publications

Journal	Impact factor	Number of papers
Composite Part A	01.131	1
Macromolecules	00.911	1
Journal of the Mechanics and Physics of Solid	02.885	2
Mechanics Research communications	00.311	1
Other indexed journals		12
Other papers in refereed journals		3

Selected publications (max. 5)

Le Cam JB, Huneau B., Verron E. , Gornet L., «Mechanism of fatigue crack growth in carbon black filled rubber», *Macromolécule*, 2004

Chagnon G., Verron E., Gornet L., Marckmann G., Charrie P, « On the relevance of continuum damage mechanics for the Mullins effect in elastomere», *Journal of the Mechanics and Physics of Solids*, 2004.

Peseux B., Gornet L., Donguy B." Hydrodynamic impact: numerical and experimental investigations », *J. Fluide structures*. 2005.

Casari P., Gornet L., « Characterization of residual stresses in a composite curved sandwich structure » *Composite Part A*, Elsevier, 2004.

Gornet L., Hochard C., Ladevèze P., Perret L., « Examples of Delamination Predictions by a Damage Computational Approach », *Damage and Failure of Interfaces*, A.A.Balkema. 1997

Other relevant information

Research projects on composite sailing race boats

Gornet L., Marckmann G., Lombard M., « Détermination des coefficients d'élasticité et de rupture des âmes nids d'abeilles : homogénéisation périodique et simulations éléments finis. », *Mécanique et Industries*, 2005

Gornet L., Marckmann G., Ollier G. « Interactions modèles expériences sur des âmes nids d'abeilles Nomex® : application au design d'un voilier multicoque de course océanique », *Revue des composites et des matériaux avancés*, Éditions Hermes, accepté 2005