



## Emmanuel GOURDON

RESEARCHER (EQUIVALENT TO PROFESSOR), PhD, HDR

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Ecole Nationale des Travaux Publics de l'Etat, University of Lyon.

Grade (Ministry of Ecology, Sustainable Development and Energy): Ingénieur Divisionnaire des Travaux Publics de l'Etat.

### BIOGRAPHY:

May 2014: HDR (French Accreditation to Conduct and Supervise Research) jointly delivered by the University Claude Bernard - Lyon 1 and INSA Lyon, Graduate School MEGA (Mechanics, Energetics, Civil Engineering, Acoustics): « Passive control of noise and vibrations by adding innovative, multifunctional, sustainable poro-elastic materials or by non-linear localization phenomena ».

October 2003 – September 2006: PhD MEGA (Mechanics, Energetics, Civil Engineering, Acoustics, Ecole Centrale Lyon): « Passive control of vibrations by energy pumping » at laboratory LGM (Laboratoire GéoMatériaux - DGCB URA CNRS 1652).

September 2003: DEA (French Diploma equivalent to Master of Science) Mechanical Engineering mention very good, MEGA Doctoral School (Ecole Centrale Lyon).

June 2003: Diploma of Engineer TPE (ENTPE) mention very good: Advanced Scientific Methods.

### RESEARCH SUPERVISOR:

PhDs : 10, PostDocs : 6.

### BIBLIOGRAPHICAL INDICATORS (SCOPUS DATABASE):

Documents: 43 ; Citations: 864 total citations by 609 documents ; h-index: 14 ; Co-authors: 87.

### TEACHING: ENTPE AND MASTER OF ACOUSTICS (UNIVERSITY OF LYON)

Building Acoustics, Physico-chemistry of materials, Materials resistance, Signal processing, Mathematics/Analysis, Scientific calculation, Informatics, Methods of Operational Research and modelling projects. Practical works of acoustics and dynamics of structures.

### AWARDS/ACADEMY MEMBERSHIP:

Winner of the "Décibel d'Argent 2014" (Silver Decibel, French National Council of Noise), in the Research category, awarded by the French Ministry of Ecology, Sustainable Development and Energy.

Member of Editorial Board of « Building Acoustics »; member of SFA (French Society of Acoustics); member of Laboratory of Excellence « Lyon Centre of Acoustics » (CeLyA); member of GDR CNRS Dynolyn (Dynamics of structures and approaches to nonlinear dynamics, research group of CNRS) and GDR META (Acoustic Metamaterials for Engineering).

### REPRESENTATIVE PUBLICATIONS IN MAJOR INTERNATIONAL PEER-REVIEWED SCIENTIFIC JOURNALS:

**Gourdon, E.**, Alexander, N.A., Taylor, C.A., Lamarque, C.H., Pernot, S. Nonlinear energy pumping under transient forcing with strongly nonlinear coupling: Theoretical and experimental results (2007) *Journal of Sound and Vibration*, 300 (3-5), pp. 522-551. **Cited 199 times.**

Gendelman, O.V., **Gourdon, E.**, Lamarque, C.H. Quasiperiodic energy pumping in coupled oscillators under periodic forcing (2006) *Journal of Sound and Vibration*, 294 (4), pp. 651-662. **Cited 98 times.**

Amaral-Labat, G., **Gourdon, E.**, Fierro, V., Pizzi, A., Celzard, A. Acoustic properties of cellular vitreous carbon foams (2013). *Carbon* 58, pp. 76-86. **Cited 32 times.**

Vargas, V.A., **Gourdon, E.**, Savadkoobi, A.T. Nonlinear softening and hardening behavior in Helmholtz resonators for nonlinear regimes (2018). *Nonlinear Dynamics*. 91(1), pp. 217-231.