

RESUME

EMMANUELLE ROUHAUD

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Born the 26th of February 1967, French.

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STATUS

- Maître de Conférences, in Université de Technologie de Troyes (UTT) since 1994.
- *Full researcher in CNRS* affiliated with the Laboratory of Physique Théorique de la Matière Condensée (LPTMC) in Université de Pierre et Marie Curie (UMPC) from September 2016 to February 2017 and from September 2014 to February 2015.
- Post-Doc in Université de Technologie de Compiègne (UTC), 1993-1994.

EDUCATION

- Habilitation to Advise Research (HDR) from Université de Technologie de Compiègne defended the 7th of November 2008. Title: *Models in mechanics: from contraction to pre-stress engineering* ([Document](#)). Committee: J.-L. Chaboche, D. Nélis, S. Denis, T. Ericsson, G. Inglebert, M.-C. Ho Ba Tho, C. Le Calvez.
- Master and **PhD** from Washington University in Saint-Louis, USA from 1989 to 1993 in Mechanical Engineering. Title: *A Distribution-Moment Model for Coupled Contraction and Metabolic Dynamics in Skeletal Muscle* advisor de George I. Zahalak ([Document](#)). Graduate Research Assistantship from Washington University and a grant from National Science Foundation. Thesis defended in 1993. Committee E. L. Elson, R. D. Rabbit, S. P. Sutura, C. Thies et G. I. Zahalak.
- Engineering degree from UTC in 1991.

RESEARCH ACTIVITIES

- Member of the team "Mechanical Systems and Concurrent Engineering", [LASMIS](#), of the [Institut Charles Delaunay](#).
- Keywords: Models, manufacturing processes, residual stresses, constitutive models, finite-elements, theory of relativity, covariance, objectivity, molecular dynamics, microstructure, fatigue.
- Publications: 30 articles and book chapters, 78 international congresses, 42 national congresses, 17 industrial reports, 5 software, 13 actions of scientific dissemination.
- Financial independence in research.
- Advising: **14 PhD** among which 8 have been defended, 3 post-docs, 12 internships of research master.
- Invited at 7 conferences and 21 seminars (including 6 international).
- Invited at 10 PhD committees (1 international) and 2 HDR committees.
- Scientific committee membership ICSP 2017 in Montréal, MTDM 2016 in Paris, Numiform 2016 in Troyes.
- Organization of 2 sessions for Numiform 2016 in Troyes. Editor for the proceedings of ECRS 2014 in Troyes. Member of local organization committee for 5 conferences.

- Reviewing of research projects for ANR, ECOS and MITACS (Canada) and of scientific papers for many international scientific journals.
- Academic collaborations with J.-L. Chaboche, P. Kanouté, L. Toulbi, S. Kruch A. Roos from ONERA; L. Roucoules, R. Kubler, L. Barrallier from ENSAM Aix-en-Provence; R. Kerner and M. Micoulaut from UPMC; C. Gay from Paris; F. Sidoroff from Centrale Lyon, H. Pron et C. Bissieux from URCA, D. Nelias from INSA Lyon.

Industrial collaborations:

- Coordination of many industrial contracts: with Allevarud Rejna, Aperam, Arcelor-Mittal, AREVA, EDF, Messier-Bugatti-Dowty, PSA, Safran, Sisson Lehmann, Snecma, SONATS, Turboméca.
- Academic expert since 2009 for « MM8: Manufacturing processes modelling » of the consortium Méthodes Avancées en Ingénierie mécanique (MAIA) a research collaboration project of SAFRAN, CNRS and ONERA.

TEACHING ACTIVITIES

- Institutions: Université de Technologie de Troyes, status Maître de Conférences; Université de Technologie de Compiègne, status: ATER; ENSAM Paris, status: lecturer.
- Area: Mechanics of continuum, fluid mechanics, elasticity, strength of materials, biomechanics, mathematics.
- Level: Undergraduate, Master, PhD. Type: Lectures, training sessions, laboratory, advisor for 60 internships and 45 projects.
- Director of the program *Numerical simulation in Mechanics* in the department of Mechanical Engineering.
- Complete creation of the content of the fluid mechanics and continuum mechanics classes (lectures, exercises, experiments for the laboratory).
- Coordinator of the foreign exchange programs for the department of Mechanical Engineering from 2008 to 2012.

ADMINISTRATIVE RESPONSABILITES

- Member of the National Academic Committee (CNU) since 2015.
- Coordination of the team Surveillance et Sécurité des Grands Systèmes inside the transverse theme Sciences et Technologies pour la Maitrise des Risques since 2015.
- Coordination of the group « pre-stress engineering » since 2008.
- Member of several for recruiting committees.
- Elected member of several committees and boards in the Université de Technologie de Troyes.

DIVERS

- Recruited when the Université de Technologie de Troyes was created in 1994, I participated to the creation of the research and teaching programs of the institution.