



Justin DIRRENBARGER

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PROFILE

I joined the faculty of the department of Materials Science & Engineering at **CNAM** in September 2013, as an Assistant Professor of Metallurgy (CNU 33). My research interests are focused on the understanding and development of **metallic architected materials** for structural applications, as well as the determination of the effective properties of such **heterogeneous media**, mostly by means of **computational homogenization**. I am responsible for the **composite materials** teachings at CNAM.

EDUCATION

Oct 2009 - Dec 2012

MINES-ParisTech, Paris

PhD in Materials Science & Engineering and Computational Mechanics

Sep 2006 - Sep 2009

Université Paris-Sud, Orsay

MSc in Materials Science & Engineering

Sep 2006 - Jun 2009

Polytech' Paris-Sud, Orsay

Diplôme d'ingénieur in Materials Science & Engineering

EXPERIENCE

Dec 2012 - Jun 2013

Centre des Matériaux, MINES-ParisTech, Evry

Research Engineer

- Multiscale modeling and simulation of the nonlinear dynamic behavior of nano-reinforced elastomers.

Oct 2009 - Dec 2012

MINES-ParisTech, Paris

PhD Candidate

- Design, modeling and computational homogenization of architected materials.

Feb 2009 - Jul 2009

Carbon Services, Schlumberger Ltd., Clamart

R&D Engineer

- Study of the durability of cement in the context of CO2 sequestration.

Apr 2008 - Aug 2008

Laboratory of Construction Materials, EPFL, Lausanne

Research Engineer

- Study of the particle size distribution of cement grains and its effect on cement hydration and mechanical properties at early age (<48 hours).

PUBLICATIONS

Peer-reviewed articles

• J. Dirrenberger, S. Forest and D. Jeulin, *Towards gigantic RVE sizes for 3D stochastic fibrous networks*, International Journal of Solids and Structures, accepted for publication, 2013

• J. Dirrenberger, S. Forest and D. Jeulin, *Effective elastic properties of auxetic microstructures: anisotropy and structural applications*, Int. J. of Mech. and Mater. in Des., **9**(1), 2013, pp. 21-33

• J. Dirrenberger, S. Forest and D. Jeulin, *Elastoplasticity of auxetic materials*, Computational Materials Science, **64**, 2012, pp. 57-61