



CIVIS

A European Civic University

Meeting on

Modelling approaches for multiscale heterogeneous materials

Amphithéâtre Canac
Laboratoire de Mécanique et d'Acoustique
4 impasse Nikola Tesla 13013 Marseille

September 21	September 22
10h00 Welcome coffee	9h00 Welcome coffee
10h30 J.M. Pons Civis presentation + discussion	09h30 Round Table (with E.L. Gay)
11h00 C. Payan - Probing materials and structures integrity in civil engineering	10h30 S. Bourgeois - On the mechanics of tape spring
11h20 C. Gatta - Multiscale shell-3D models for in-plane and out-of-plane masonry structural response	10h50 N. Lahellec - Viscoelastic composites
11h40 K.E.M Kamel - Automated meshing strategies for complex microstructures	11h10 H. Moulinec - An introduction to FFT-based homogenization methods
12h00 Lunch break	11h30 F. Lebon - On the modeling of interfaces
13h30 L. Gulfo - Generation woven composite models accounting for compaction	11h50 B. Wintiba - AI-based modelling of thermostamping of composites
13h50 K.E.M Kamel - Image-based modelling of the stress-dependance of fluid tranfer properties in sandstones	12h10 R. Cottureau - Radiative Transfer to model high-frequency propagation of energy in a polycrystalline material
14h10 L. Belgrand - Proximity effects in matrix-inclusion composites: elastic effective behavior, phase mean-field and full-field computational analysis	12h30 D. Addessi - First-order and enriched homogenization procedures
14h30 C. Gatta - ROM multiscale modelling based on TFA for heterogeneous composite materials	12h50 Lunch break
14h50 C. Bouiyed - Modelling of heterogeneous soils towards lime treatment modelling	14h00 Round table
15h10 M. Garajeu - Non linear homogenization model for brittle damage in particulate composites	15h30 <i>End of the meeting</i>
15h30 Coffee break	
16h00 T. Massart - Computational modelling of closed and open metallic foams	
16h20 L. Parente - Modelling of soft lattice metamaterials: micromechanical nonlinear buckling analysis	
16h0 B. Wintiba - Image-based modelling of 3D woven composites	
17h00 Visit of LMA	
18h00 <i>End of the day</i>	