



# Archi Mat 2014

Second International School on Architected Materials

GRENOBLE, June 1<sup>st</sup>-6<sup>th</sup>

## Program

### Basic courses

Materials, continuum mechanics, functional properties, characterization, modelling.

### Specific courses on architectures

Cellular, lattices, fibres, fabrics, interlocked ...

### Thematic seminars

Additive manufacturing, discrete modelling, bio-inspired materials, alloy design ...

### Industrial examples




















Set of requirements from transport, building energy ...

### Informal discussions

Dedicated time for informal discussions with teaching team and with :

 Y. Bréchet    D. Embury    J. Hutchinson

## Teaching team

 M. Begley  
 O. Bouaziz  
 J. Dunlop  
 M. Eder  
 Y. Estrin  
 L. Flandin  
 L. Heller  
 G. Hibbard  
 P. Jacques  
 E. Maire  
 C. Martin  
 S. Meille  
 A. Molotnikov  
 D. Poquillon  
 R. Rinaldi  
 L. Salvo  
 A. Simar  
 F. Simon  
 L. Thilly



## Architected Materials

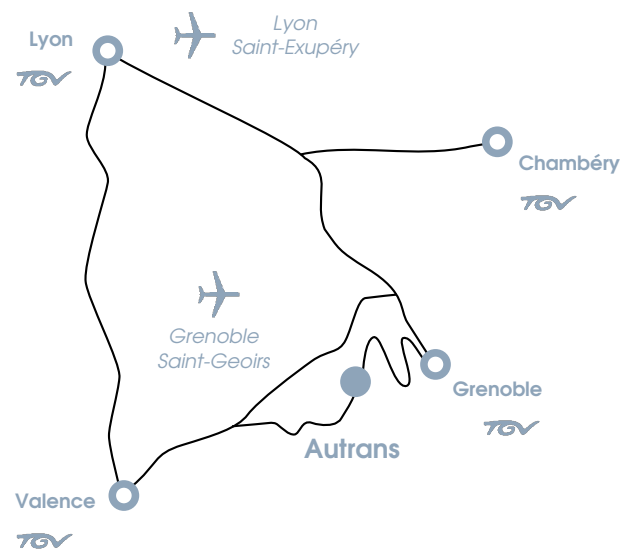
The strategy to associate various materials classes and various architectures is well suited to a "Materials by Design" approach, where the material, in a general sense, is developed to meet a complex multifunctional set of requirements. This approach requires a close collaboration between materials sciences and mechanics, also with specialists of optimisation and design. Modelling, processing and characterisation are also necessary facets of this approach.

The meeting will last full five days. Advanced courses on multiscale modelling, on interface mechanics, on functional properties, and a series of seminars on examples of multifunctional architected materials, will be given both by academic and industrial researchers. A substantial amount of time will be devoted to student presentations, and some key actors of the field will be invited to interact in an informal manner with students.

## Conference location

Centre de l'Escandille, **Autrans** (1050m)

Autrans, situated in the heart of the Vercors Natural Regional Park has preserved its natural environment and typical architecture of this mountain region.



## Registration

The registration can be performed at :

<http://dr11.azur-colloque.cnrs.fr/pre-inscription.php?colloque=126&lang=en>

### Registration fees

Student	500 €
Other	600 €

*Including full accomodation for 6 days, a gala diner and numerical compilation of all the presentations*

Deadline for registration : **May 15<sup>th</sup> 2014**  
(within the limit of available places)

## Organizing committee

**Rémy Dendievel** [remy.dendievel@simap.grenoble-inp.fr](mailto:remy.dendievel@simap.grenoble-inp.fr)  
**Pierre Lhuissier** [pierre.lhuissier@simap.grenoble-inp.fr](mailto:pierre.lhuissier@simap.grenoble-inp.fr)  
**Guilhem Martin** [guilhem.martin@simap.grenoble-inp.fr](mailto:guilhem.martin@simap.grenoble-inp.fr)

### By car

**Lyon** : 130 km > 1 h 40  
**Grenoble** : 38 km > 40 mn  
**Valence** : 78 km > 1 h 15

### By train & bus

Grenoble by train,  
 Grenoble - Autrans by bus  
 Trans'Isère n°5100 (6 / day)

### By plane

Airport Grenoble Saint-Geoirs  
[www.grenoble-airport.com](http://www.grenoble-airport.com)

International airport Lyon  
 Saint-Exupéry  
[www.lyon.aeroport.fr](http://www.lyon.aeroport.fr)