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# ArchiMat 2011

First International School on Architected Materials

GRENOBLE, May 22-27

## Topics

### Basic courses

Materials properties, continuum mechanics, characterization, modelling, optimization

### Specific architectures

Cellular, fibres, sandwiches, fabrics

### Thematic workshops

Discrete modelling, interlocked materials

### Industrial examples

Set of requirements from transport, energy

## Special guests

**M. Ashby**

*Cambridge, UK*

**D. Embury**

*Mc Master, Canada*

**J. Hutchinson**

*Harvard, US*

## Teaching team

F.J. Barthold

Y. Bréchet

J. Dunlop

S. Forest

R. Leriche

J.F. Ganghoffer

E. Maire

A. Mortensen

P. Onck

T. Pardoen

D. Poquillon

J. Randrianalisoa

L. Salvo

F. Simon

P. Weaver

H. Zurob

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## Architected Materials

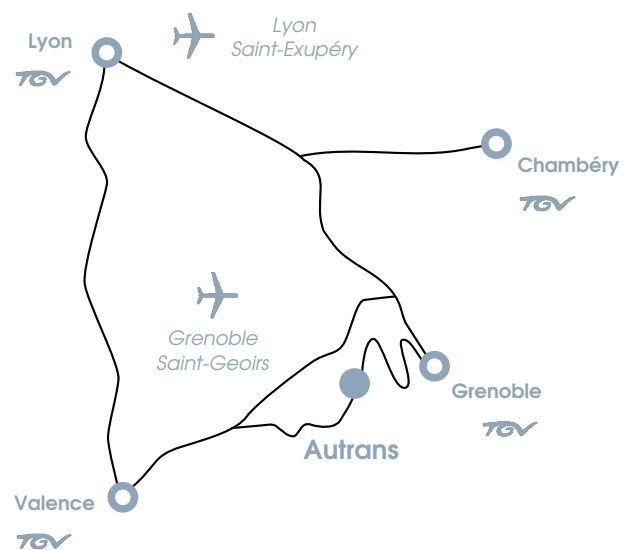
The strategy to associate various materials classes and various architectures is well suited to a "Materials by Design" approach, where the material, in a general sense, is developed to meet a complex multifunctional set of requirements. This approach requires a close collaboration between materials 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 six days, advanced courses on multiscale modelling, on interface mechanics, on functional properties, and a series of seminars on examples of multifunctional architected materials, 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 pre-registration form can be downloaded in the web site of the conference :

[www.materiauxarchitectures.fr](http://www.materiauxarchitectures.fr)

Registration fees	Student	400 €
	Other	500 €

*Including full accomodation for 6 days and a gala diner*

Deadline for registration : **March 31 2011**

## Organizing committee

**Yves Bréchet** [yves.brechet@grenoble-inp.fr](mailto:yves.brechet@grenoble-inp.fr)  
**Rémy Dendievel** [remy.dendievel@grenoble-inp.fr](mailto:remy.dendievel@grenoble-inp.fr)  
**Samuel Forest** [samuel.forest@mines-paristech.fr](mailto:samuel.forest@mines-paristech.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)