

# PTM2010

Solid-Solid Phase Transformations in Inorganic Materials

June 6-10, 2010

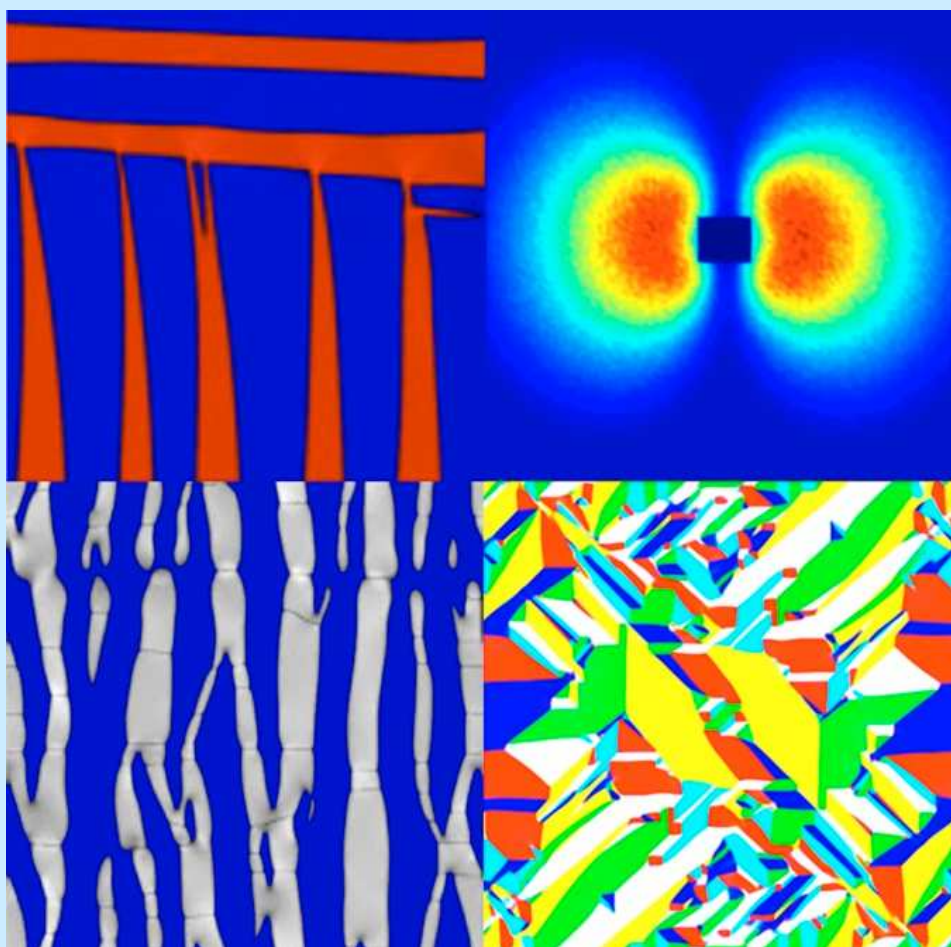
Palais des Papes, Avignon, France



ONERA

THE FRENCH AEROSPACE LAB

## CALL FOR PAPERS



PTM 2010 will provide an international forum to experimentalists and theoreticians in the field of solid-solid phase transformations. Contributions on advances in experimental, theoretical and computational developments in the domains of displacive and diffusive transitions, and in the emerging areas of biophysics, nanodevices and driven systems, are welcome.

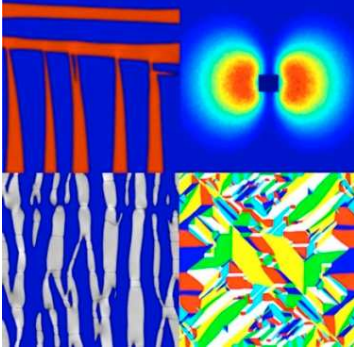
The meeting will be held in the Palace of Popes, in the heart of Avignon, a historical city close to the French Riviera.

This conference follows the tradition of the International Solid-to-Solid Phase Transformation in Inorganic Materials Conferences held previously at Carnegie Mellon (1981), Cambridge University (1987), Nemacon Woodlands (1994), Kyoto (1999), and Phoenix (2005).

With the support of



SF2M



## Plenary Lectures

Harry Bhadeshia  
Peter Fratzl  
Lindsay Greer  
Georges Martin  
Gary R. Purdy  
Ekhard Salje  
Frans Spaepen  
Michel Rappaz

University of Cambridge, UK  
Max-Planck-Institut, Germany  
University of Cambridge, UK  
CEA Saclay, France  
McMaster University, Canada  
University of Cambridge, UK  
Harvard University, USA  
École Polytechnique Fédérale de Lausanne, Switzerland

## Topic List

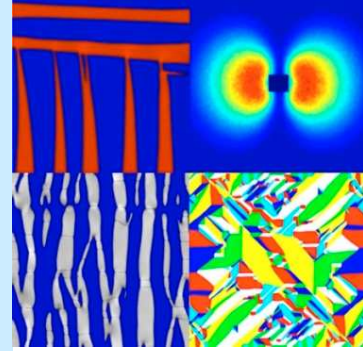
- **Displacive transformations**  
Thermodynamics, kinetics and crystallography of martensitic transformations  
Shape memory alloys
- **Diffusional transformations**  
Precipitation  
Nucleation, growth and coalescence  
Spinodal decomposition and ordering
- **Transition by interface migration**  
Discontinuous precipitation  
Recrystallisation and grain boundaries  
Austenite-to-ferrite and other allotropic transformations
- **Order and disorder transitions**
- **Phase transitions and size effects**  
Nanomaterials  
Thin films and multilayers
- **Driven systems and phase transformations**  
Patterning  
Irradiation  
Mechanical alloying
- **Phase transformations during industrial processing**  
Non-isothermal heat treatments  
Coupling with plastic deformation  
Welding processes  
Surface treatments
- **Phase transformations in amorphous alloys and complex phases**  
Amorphous systems  
Quasicrystals and other complex systems
- **Advances in theory and modeling of phase transitions**  
First principles and quantum mechanics  
Atomistic approaches  
Modeling at mesoscale  
Fundamentals of structures, diffusion and thermodynamics  
Microstructural evolution
- **Advances in experimental techniques**  
In situ techniques  
Transmission electron microscopy  
Diffraction methods  
Atomic scale resolved techniques
- **Novel systems and special topics**  
Phase transformation in polymers, liquid crystal, biological systems...  
Stress effects in minerals  
Ferroic materials

## Abstract Submission

Abstracts must be submitted online at: [www.ffc-asso.fr/PTM2010](http://www.ffc-asso.fr/PTM2010)

**Deadline for submission is November 17, 2009.**

The submitting authors will be notified by February 2010 about the papers status.



## Venue

Hooped by 5 km of superbly preserved stone ramparts, Avignon is one of the most graceful cities of the south of France and part of the UNESCO's World Heritage. The conference will take place in the Palace of the Popes. This medieval fortress was the seat of the papal power during the 14th century and is a treasury of magnificent art and architecture.

Famed for its annual performing arts festival, Avignon is also an animated city and an ideal spot from which to step out into the surrounding Provence.

### Access

Avignon is at less than three hours from Paris by high speed train with direct trains from Roissy Charles de Gaulle international airport.



## General Information

**Proceedings** will be published after peer-reviewing as a special issue of *Solid State Phenomena*, with a separate book edition for the conference participants. They will be online available at [www.scientific.net](http://www.scientific.net).

Authors will receive later detailed instructions for manuscript submission.

### Dates to note

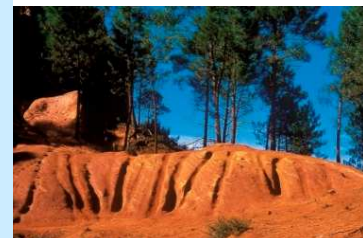
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| 17 November 2009 | Deadline for submission of abstracts                       |
| February 2010    | Notification to authors and opening of online registration |
| March 2010       | Preliminary Program  |
| June 2010        | Submission of Papers                                       |

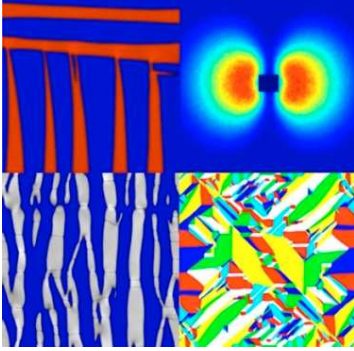
### Secretariat

Christelle Colas, FFC ([colas@ffc-asso.fr](mailto:colas@ffc-asso.fr))

### Website

[www.ffc-asso.fr/PTM2010](http://www.ffc-asso.fr/PTM2010)





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