

# Modeling Granular Media Across Scales

Jointly organized by MIT (Cambridge) & MiDi Network (Montpellier)

Montpellier, 9-11 July 2014

## Objectives

Considerable progress has been made over the last two decades in modeling granular materials. Efforts to characterize disordered granular texture, force chains and grain velocities have led to a better understanding of the complex rheology of granular media, and of granular behaviors under different driving and geometric inputs. Another path of progress, motivated by problems in natural and industrial settings, has focused on the interaction of granular media with an ambient fluid or solid phase, as well as realizing the impact of grain properties like stiffness, shape, size distribution, and contact behavior on the macroscopic observables. Developments in these areas have emerged jointly from the physics and engineering communities, based on studies of a range of materials, from model granular media to soils and powders.

This conference, organized by MIT and the MiDi (Milieux Divisés) Network of Montpellier, is intended to bring those communities together to focus on the modeling of granular materials over various scales. All theoretical, numerical, and experimental approaches are welcome, including upscaling and coarse-graining procedures in model granular materials, statistical physical models, homogenization methods, analysis of specific behaviors of natural granular media and its microstructure, cemented granular materials, and inertial flows. The 3-day conference program in Montpellier will be composed of invited and contributed talks.

## Organizing committee

**MIT** Cambridge, USA

**MiDi** Montpellier, France

Ken Kamrin

Farhang Radjai **CNRS**

Jean-Yves Delenne **INRA**

Thierry Ruiz **UM2**

Carole Delenne **UM2**

Alfredo Taboada **UM2**

## Invited speakers

**Bob Behringer**

**Yoël Forterre**

**Joe Goddard**

**Evelyne Kolb**

**Stefan Luding**

**Namiko Miatarai**

**Corey O'Hern**

**Roland Pellenq**

**Jean-Noël Roux**

**Kenichi Soga**

**Alfredo Taboada**

**Martin Van Hecke**

**Dietrich Wolf**

Duke University, USA

IUSTI Marseille, France

University of California San Diego, USA

ESPCI Paris, France

University of Twente, Netherlands

University of Copenhagen, Denmark

Yale University, USA

MIT, Cambridge, USA

Institut Navier Paris, France

Cambridge University, UK

Montpellier University, France

Leiden University, Netherlands

University of Duisburg, Germany

## Information

The conference takes place at the historical Faculty of Medicine located at the city center of Montpellier, a central Mediterranean city in the south of France and easily accessible by air and train.



Conference website: [www.cgp-gateway.org/MGMAS2014](http://www.cgp-gateway.org/MGMAS2014)

Abstract deadline: **4 May 2014**

Secretariat:

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