## **Important dates**

January 2018 Call for papers

6<sup>th</sup> April 2018 Abstract submission

18<sup>th</sup> May 2018 Notification of acceptance

22<sup>th</sup> June 2018 Early bird registration

deadline

27<sup>th</sup> August 2018 Symposium and training registration deadline

31st August 2018 Poster reception

deadline

16<sup>th</sup> November 2018 Full papers reception

#### **Abstracts**

Extended abstract of 2 pages.

There will be two types of presentation:

- talk (20mn)
- poster (format A0 841 x 1189 mm).

Posters will be introduced by the chairman in 5min during the plenary session before the poster session.

### Contact

c.dizier@aim-association.org

www.aimontefiore.org/INDENTATION 2018

Tel: +32 (0) 4 222 29 46

## Symposium venue

Exèdre Dick Annegarn B8 Quartier Agora, l'Agora 1 Liège, 4000 BELGIUM

#### Rates until 22<sup>nd</sup> June 2018\*:

- Symposium registration (including gala dinner):
  - > SF2M non members: 350€
  - > SF2M members: 300€
  - > Students: 150€
- Trainings:
  - ➤ Students and academics: 50€
  - ➤ Industrials: 1000€ (including symposium registration)

Instrument demonstration: Please contact us at <a href="mailto:c.dizier@aim-association.org">c.dizier@aim-association.org</a>

After 22<sup>nd</sup> June 2018, an extra cost of 50 € will apply.

#### **Organizers**









#### **Sponsors**





\* These rates might be slightly modified

# Indentat ..... 2018



Groupe Indentation
Multi-Echelle
Symposium



**Call for papers** 

**September 11-14 2018** 

Liège

#### Introduction

The symposium "Indentation 2018" from Groupe Indentation Multi-Echelle (GIME) is addressed to academics and industrials with mechanical concerned characterisation issues with instrumented indentation at different scales.

The goals of this symposium are to communicate on recent developments in indentation in terms of analysis and simulation, to show the extent of the derived properties and to present indentation applications (fracture, mechanics, constitutive laws, plasticity, fatigue, creep, ...). This will be done by sweeping examples of studies heterogeneous materials, porous ceramics, coated materials or materials with gradient properties.

In general, this conference aims to better understand the indentation, but also to share this great tool for characterizing between the scientific and industrial communities.

#### **Publications**

Papers, after the acceptance by the scientific committee, will be published in the "Matériaux & Techniques" magazine that deals with industrial materials, their technical implementation and use. The journal, indexed in Scopus (Impact Per Publication = 0.265) is published by EDP Sciences.

http://www.mattech-journal.org/

## Languages

Presentations, exhibitions and related activities will be preferentially in English, with always English slides.

## **Organization Committee**

Université de Liège:

**DUCHENE Laurent, HABRAKEN Anne-**Marie, MERTENS Anne, RUFFONI Davide, TCHUINDJANG Jérôme Tchoufang.

CRM Group, Liège:

LIBRALESSO Laure. MERCIER David.

Université Catholique de Louvain: **COLLA Marie-Stéphane, FAVACHE** Audrey, RYELANDT Sophie.

Université de Mons: **BONIN** Luiza

AIM, Liège:

**DELVILLE Michèle, DIZIER Céline** 

#### **Scientific Committee**

**BARTHEL Etienne (ESCPI, Paris Tech) BENAYOUN Stéphane (LTDS, Ecully) CHICOT Didier (LML, Villeneuve** d'Asca) **DUCHENE** Laurent (ULG, Liège) **GUIN Jean-Pierre (LGCGM, Rennes)** HABRAKEN Anne-Marie (ULg, Liège) **KERMOUCHE Guillaume (LGF, Saint-**Etienne) **KERYVIN Vincent (LIMATB, Lorient)** 

LE BOURHIS Eric (P. Futuroscope,

**Chasseneuil)** 

LOUBET Jean-Luc (LTDS, Ecully) **MAUVOISIN Gérard (LGCGM, Rennes)** 

**MONTAGNE Alex (MSMP, Lille)** 

**PARDOEN Thomas (UCL, Louvain-La-**Neuve)

**PELLETIER Hervé (ICS, Strasbourg)** 

RUFFONI David (Ulg, Liège) VITRY Véronique (Université de Mons)

## **Trainings**

- 11/09/2018 (afternoon)
- → Indentation and modelling (4h)
  - Goal of indentation ? Which properties to obtain and how to do?
  - Results analysis ? Analytical models vs numerical modelling ?
- 12/09/2018 (morning)
- → Indentation and fracture: theory and numerical modelling (4h)
  - Fracture during indentation ?
  - Numerical simulations ? Use of cohesive zone ?

## **Topics**

- > Fundamentals aspects of indentation and derived properties
- Polymers, bio-materials and biological materials
- Metals and crystal plasticity
- > Heterogeneous materials (concrete, composite materials, materials with gradient properties, ...)
- > Thin films, coatings, multilayer, ...
- Simulation and modelling
- > Extreme conditions: AFM contact, in situ nanoindentation, in temperature, with humidity, ...
- Industrial applications