CFRAC 2019

12-14 June 2019, Braunschweig, Germany

How to register and submit contributions

Authors are invited to submit individual contributions on any of the conference topics. Submissions and conference registration should be performed electronically via the conference website:

http://congress.cimne.com/CFRAC2019

Conference Secretariat

International Centre for Numerical Methods in Engineering
CIMNE Congress Bureau
Campus Nord UPC, Building C3 - "Zona Comercial"
Jordi Girona, 1-3 (08034), Barcelona, Spain
Tel. +34 93 405 4696 / Fax +34 93 205 8347
CFRAC2019_sec@cimne.upc.edu

Location

The conference will take place in Braunschweig, a city in Lower Saxony, Germany, north of the Harz mountains at the farthest navigable point of the Oker river which connects it to the North Sea via the Aller and Weser rivers.

Member of the Hanseatic League from the 13th until the 17th century, Braunschweig today is the second largest city in Lower Saxony and a major centre of scientific research and development.

The conference venue will be the Steigenberger Parkhotel Braunschweig, located opposite the Volkswagen Halle arena. From here it is only a 13-minute walk to the historic old town with the Dankwarderode Castle, the Town Hall and the cathedral.

Preliminary Registration Fees

	Early fees If paid before March 15, 2019	Late Fees If paid on or after March 15, 2019
Delegates	500 €	600 €
Students	300 €	400 €

ECCOMAS and IACM members will have a 5% reduction on the delegate fees.

The registration fee includes: conference proceedings, attendance at the scientific sessions, coffee breaks, lunches, welcome cocktail and social banquet.

Supporting Organizations

- European Community on Computational Methods in Applied Sciences (ECCOMAS)
- Technische Universität Braunschweig, Germany
- École Normale Supérieure Paris-Saclay, France
- Czech Technical University in Prague, Czech Republic
- École Centrale de Nantes, France

ECCOMAS Support

CFRAC 2019 is a Thematic Conference of the European Community on Computational Methods in Applied Sciences (ECCOMAS). www.eccomas.org

CFRAC 2019

VI International Conference on Computational Modeling of Fracture and Failure of Materials and Structures

12–14 June 2019, Braunschweig, Germany

ECCOMAS Thematic Conference

http://congress.cimne.com/CFRAC2019

Objectives

The 6th edition of the International Conference on Computational Modeling of Fracture and Failure of Materials and Structures (CFRAC 2019) will be organised on 12-14 June 2019 in Braunschweig, the second largest city in Lower Saxony, a powerful and influential centre of commerce in medieval Germany, and now a major centre of scientific research and development.

The previous five editions of this conference were held in Nantes (CFRAC 2007), Barcelona (CFRAC 2011), Prague (CFRAC 2013), Cachan (CFRAC 2015) and Nantes (CFRAC 2017)

The aim of CFRAC 2019 is to gather academic researchers and industrial partners involved in development and application of numerical procedures for fracture and failure simulation of materials and structures, in an effort to facilitate the exchange of ideas in topics of mutual interest and to serve as a platform for establishing links among research groups in Europe and worldwide.

Designers of engineering structures must answer to ever increasing requests on performance in terms of safety, reliability, durability, low cost and low energy consumption. As new materials and new applications arise, traditional design rules and conventional testing methods become insufficient or inapplicable, which strengthens the role of computational methods in the design process. Numerical tools can accelerate the development of new products and their optimization.

The conference is one of the Thematic Conferences of the European Community on Computational Methods in Applied Sciences (ECCOMAS) and it is also supported by other scientific organizations in Europe and worldwide.

Conference Chairmen

Laura De Lorenzis, Technische Universität Braunschweig, Germany

Olivier Allix, École Normale Supérieure Paris-Saclay, France

Milan Jirásek, Czech Technical University in Prague, Czech Republic

Nicolas Moës, École Centrale de Nantes, France

Local Organizing Committee

Marreddy Ambati, Tuanny Cajuhi, Pietro Carrara and Tymofiy Gerasimov, Technische Universität Braunschweig, Germany

Scientific Committee

- J. Alfaiate, Portugal
- D. Bonamy, France
- P.O. Bouchard, France
- B. A. Bourdin, USA
- P.P. Camanho, Portugal
- I. Carol, Spain
- M. Ciccotti, France
- J.M.A. César de Sà, Portugal
- M.G. D. Geers, Netherlands
- S. A. Hall, Sweden
- S. R. Hallett, UK
- A.E. Huespe, Argentina
- F. Kun, Hungary
- S. Löehnert, Germany
- C. Maurini, France
- J.-F. Molinari, Switzerland
- X. Oliver, Spain
- M. Ortiz, USA
- J. Ožbolt,Germany
- A. Pandolfi, Italy
- R. H. J. Peerlings, Netherlands
- G. Pijaudier-Cabot, France
- M. Poncelet, France
- L. Ponson, France
- J. J. C. Remmers, Netherlands
- J. Réthoré, France
- S. Roux, France
- L. J. Sluys, Netherlands
- E. Van der Giessen, Netherlands
- E. Verron, France
- F. Wittel, Switzerland

Conference Topics

The conference topics will include (the list is not exhaustive):

- Algorithms for crack propagation and evolving discontinuities
- Continuum damage mechanics
- Coupled experimental-computational identification
- Ductile and large deformation fracture
- Dynamic fracture
- Failure mechanisms in forming processes
- Finite elements with embedded strong discontinuities
- Fracture of composites
- Fracture of nano-structures
- Fragmentation
- Transition from damage to fracture
- Interaction of fracture with heat and moisture transport
- Micro-cracking
- Multi-scale analysis for cracks
- Objective description of localized strain, regularization methods
- Statistical aspects of fracture
- Discrete models for material failure
- Fracture of polymers and glass

Important Dates

Deadline for presenting a one page abstract	January 11, 2019
Acceptance of the contributions	February 11, 2019
Deadline for early payment and for speaker registration(*)	March 7, 2019

(*) Presenting authors are required to finalize their registration before March 7, 2019 in order to get the presentation included in the Conference Programme.