Location

The conference will take place at Leibniz Universität Hannover (LUH), Conti-Campus, Königsworther Platz 1, 30167 Hannover, Germany.

Hannover is a major centre of Northern Germany and the country’s thirteenth largest city. The city is of national importance because of its universities and medical school, its international airport and its large zoo. It is also a major crossing point of railway lines and highways, connecting European main lines in both the east-west and north-south directions.

Preliminary Registration Fees

<table>
<thead>
<tr>
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<th>Early Fees</th>
<th>Late Fees</th>
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<tbody>
<tr>
<td>Delegates</td>
<td>555 €</td>
<td>655 €</td>
</tr>
<tr>
<td>Students</td>
<td>415 €</td>
<td>495 €</td>
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</tbody>
</table>

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

Registration fees include: Conference proceedings, attendance at all scientific sessions, coffee breaks, reception and banquet.

Supporting Organizations:

- Leibniz Universität Hannover
- International Center for Numerical Methods in Engineering (CIMNE)
- Universitat Politècnica de Catalunya (UPC), Barcelona, Spain
- European Community on Computational Methods in Applied Sciences (ECCOMAS)
- International Association for Computational Mechanics (IACM)

ECCOMAS and IACM Support

PARTICLES 2017 is a Thematic Conference of the European Community in Computational Methods in Applied Sciences (ECCOMAS).

PARTICLES 2017 is a Special Interest Conference of the International Association for Computational Mechanics (IACM).
PARTICLES 2017 will address both the fundamental basis and the applicability of state-of-the-art particle-based computational methods that can be effectively used for solving a variety of problems in engineering and applied sciences.

On the one hand, it represents discretization concepts in which the response of a continuum is projected onto “particles” carrying the mechanical information during deformations. Typical representatives are Meshless Methods, Smoothed Particles Hydrodynamics (SPH), Moving Particle Simulation (MPS), Particle Finite Element Method (PFEM), Material Point Method (MPM) and the Lattice-Boltzmann-Method (LBM).

On the other hand, the notion expresses the computational representation of physical particles existing on different scales. Classical versions are Molecular Dynamics (MD) or the Discrete (Distinct) Element Method (DEM). In some cases the two models of discretization and physical particles are even interconnected.

PARTICLES 2017 covers both concepts of particle-based methods because of their strong interrelation in their computation as well as application point of view.

Organizing Committee
Peter Wriggers (Chair) Leibniz Universität Hannover, Germany
Manfred Bischoff Universität Stuttgart, Germany
Eugenio Oñate CEMNE / Universitat Politècnica de Catalunya, Barcelona, Spain
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- F. Wittel, Switzerland
- G. Yagawa, Japan
- F. Zárate, Spain
- X. Zhang, China

Conference Topics

Fundamentals
- Discretization techniques
  - Meshless methods
  - Smoothed Particles Hydrodynamics (SPH)
  - Moving Particle Simulation (MPS)
  - Particle Finite Element Method (PFEM)
  - Material Point Method (MPM) and the Lattice-Boltzmann-Method (LBM)

Physical particles procedures
- Molecular Dynamics (MD) and Discrete (Distinct) Element Methods (DEM)

Applications
- Bio-medical engineering
- Composites
- Computational chemistry
- Contact problems
- Damage, fracture & fatigue
- Disintegration processes
- Earth and rock-fill dams
- Environment and geosciences
- Forming processes
- Free surface flows
- Geomechanics
- Geophysics
- Granulation processes
- High velocity impact and blast problems
- Industrial applications
- Melting of objects in fire
- Mixing processes
- Multi-body and non-linear dynamics
- Multi-fracturing solids systems
- Multi-physics problems
- Multi-scale material models
- Multiphase flows
- Nano-mechanics
- Oil and gas exploration and extraction
- Parallel processing
- Quantum mechanics
- Radiation damage
- Real time computing
- Ship hydrodynamics

Important Dates
Deadline for presenting a one page abstract February 10, 2017
Acceptance of the contributions March 10, 2017
Deadline for submitting the full paper (not mandatory), presenting author’s registration(*) May 26, 2017
and early payment

(*) Presenting authors are required to finalize their registration before May 26, 2017 in order to get the presentation included in the Conference Program.