

7th International Conference on Discrete Element Methods (DEM7)

August 1-4, 2016 Dalian, China



7th International Conference
on Discrete Element Method



Call for Abstract of DEM7

THE 7TH INTERNATIONAL CONFERENCE ON DISCRETE ELEMENT METHODS (DEM7)

DALIAN, CHINA, AUGUST 1-4, 2016

The first call for short abstracts (80 - 200 words) on line submission is now open (from September 15 to December 31, 2015) on the following conference web site:

<http://www.dem7.cn/>

DEM7, the 7th International Conference on Discrete Element Methods and related computational techniques (DEM7) will be held at Dalian University of Technology, Dalian, China from 1 to 4 August, 2016. Discrete element methods (DEM) are a family of numerical techniques developed over the past decades to model granular materials and other discontinua at the scale of individual grains and above. The previous conferences in this series were held in Golden, USA (1989), Boston, USA (1992), Santa Fe, USA (2002), Brisbane, Australia (2007), London, England (2010) and Golden, USA (2013). This conference is an international forum that brings together a diverse group of researchers and practitioners to discuss and present new DEM modeling methodologies and applications.

This conference is especially designed for engineers, applied mathematicians and scientists from academia, industry and naturel environment who are interested in the latest advances in discrete element technology. These advances include theoretical and computational developments in the DEM, and its innovative applications in the applied sciences and engineering. The conference covers many DEM-related topics, including but not limited to the following:

● **Discrete Element Methods**

- Particle-based computational methods, crushable discrete element modeling methods
- Multiscale methods for discrete particle assembly - continuum modeling
- DEM for coupled multi-physical behaviors, wet granular materials
- Numerical techniques: mathematical theory, contact detection algorithms, parallelization methods
- Discontinuous deformation analysis

● **Coupled methods and software**

- Coupled techniques: CFD, SPH, boundary elements, finite elements, meshless methods, coupled multiphase methods with fluid or gas dynamics
- Parallel computing, grand challenge problems, software design and implementation, program architecture, key diagnostics, visualization, Open source developments, commercial software platforms
- Experimental validation: characterization and measurement of material properties, relationship between particulate and bulk material properties

● **Applications to various engineering problems**

- Fracture of concrete, reinforced concrete, rock mechanics,
- Large-scale industrial applications in material processing,
- Geotechnical applications,
- Mining, or petroleum engineering,
- Fracture, fragmentation
- Blasting, impact, demolition
- Particulates, granular flow, micro-flow
- Structures in distress, astrophysics applications, milling-powders-mineral processing