

Basics on Granular Materials and Mechanics

Different Rolling Measures for Granular Assemblies

Katalin Bagi (Budapest, H) & **Matthew Kuhn** (Portland, USA)

On Eulerian Description of Finite Elastoplasticity in Soil Mechanics

Otto Bruhns (Bochum, D)

The Measures of Internal State in Granular Materials

Bernard Cambou (Lyon, F)

On Maximum-Entropy Estimates for Granular Statics

Joe Goddard (San Diego, USA)

The Role of Fluctuations in the Mechanics of Granular Materials

James Jenkins (Ithaca, USA)

Theoretical and Computational Aspects of Micromorphic Continua

Paul Steinmann & **Nina Kirchner** (Kaiserslautern, D)

On the Mechanics and Physics of Granular Media

Colin Thornton (Birmingham, GB)

Discrete Modelling

Micromechanical Aspects of Soil Plasticity

Hans Herrmann & **Fernando Alonso Marroquin** (Stuttgart, D)

Elasto-Plastic Properties of Granular Assemblies

Klaus Kassner (Magdeburg, D)

Coupling between Progressive Damage and Permeability of Concrete - Discrete Modelling and Experimental Analyses.

Gilles Pijaudier-Cabot & **George Chatzigeorgiou** (Nantes, F)

Energy Dissipation in Granular Materials in Numerical Simulations

Leo Rothenburg (Waterloo, CAN) & **Niels Kruyt** (Twente, NL)

Micro Mechanics of the Incremental Response of Virgin and Pre-loaded Granular Soils to Deviatoric Stress Probing

Gioacchino Viggiani (Grenoble, F)

Discrete and Continuum Approaches

Application of Porous Media Theories to Erosion Problems

Stefan Diebels et al. (Saarbrücken, D)

Micro-Macro Modelling of Granular Materials

Wolfgang Ehlers & **Sabine Wenz** (Stuttgart, D)

Two-Scale Continuous-Discontinuous Modelling of Damaging Materials

Marc Geers (Eindhoven, NL)

Micro-Macro Models for an-isotropic Granular Media

Stefan Luding (Delft, NL)

Hybrid Continuous/Discrete Approaches for the Modelling of Multi-Fracturing Solids

Roger Owen (Swansea, GB)

Discrete Modelling of Geomaterials

Ekkehard Ramm & **Gian Antonio D'Addetta** (Stuttgart, D)

Mechanics of Granular Media: The Discrete and the Continuum Description juxtaposed

Ioannis Vardoulakis (Athens, GR) & **Francesco Froiio** (Roma, I)

Continuous Modelling & Calibration

Chemo-Mechanical Modelling of Soil or Rock Degradation

Robert Charlier (Liège, B)

Failure and Flow Rule in Granular Materials as Incrementally non-linear Media

Felix Darve & **Guillaume Servant** (Grenoble, F)

Nonlocal Plasticity Models for Concrete Failure

Milan Jirásek (Lausanne, CH)

Indentation Method for Damage Diagnosis of Natural Building Stones

Euripides Papamichos (Thessaloniki, GR) & **Stefanos-Aldo**

Papanicolopoulos (Athens, GR)

Application of Gradient Plasticity to Describe the Influence of Size of Concrete Elements on Failure

Folker Wittmann (Freiburg, D) & **Huang Yuan** (München, D)

Finite Element Modelling

Hydromechanical Numerical Modelling of Geotechnical Problems using Local Second Gradient Models

Rene Chambon & **Frédéric Colin** (Grenoble, F)

Identification of Macroscopic Material Properties of Asphalt and Concrete from Finer Scales of Observation

Herbert Mang & **Roman Lackner** (Vienna, A)

Modelling the Subsidence induced by Degradation of Abandoned Mines

Roberto Nova & **Francesco Calvetti** (Milano, I)

3D Modelling of Concrete-like Materials under Impact Loading

Josko Ozbolt (Stuttgart, D)

Numerical Modelling of Fast Landslides

Manuel Pastor (Madrid, E)

Shear Localization and Fracture

On some Instability, Size and Gradient Effect Problems in Geomaterials

Elias Aifantis (Thessaloniki, GR)

Localized Failure in Saturated Porous Media

Jacques Desrues (Grenoble, F)

Some Shear Localizations Recently Achieved with Hypoplasticity

Gerd Gudehus et al. (Karlsruhe, D)

Discontinuous numerical representation of brittle failure

Günther Meschke (Bochum, D)

Effect of Interface Thickness and Particle Density on Fracture of Concrete

Jan van Mier & **Giovanna Lilliu** (Zürich, CH)

Combined Continuous/Discontinuous Modelling of Mode-I and Mode-II Failure

Bert Sluys & **Angelo Simone** (Delft, NL)

Modelling Strong Discontinuities in Geotechnical Problems with Special Consideration of the Onset

Pieter Vermeer & **Urs Vogler** (Stuttgart, D)

REGISTRATION FORM

Continuous and Discontinuous Modelling of Cohesive Frictional Materials

CDM 2004

27th and 28th September 2004
Stuttgart

I will participate at the symposium and will be accompanied by ____ persons.

Name(s) / Title(s):

.....

.....

Organisation:

Address:

Area Code / City:

Country:

Phone:

Fax:

E-Mail:

After registration I will receive an invoice with all details on the payment possibilities.

Signature:

to be send back to the organisation committee by fax:
+49 (0)711 685 2439

Scope of the Symposium

Following the first successful symposium on "Continuous and Discontinuous Modelling of Cohesive Frictional Materials" "CDM 2000" the coming workshop "CDM 2004" is projected in the same subject-spanning manner and aimed again at an international audience.

Hence, this symposium focuses on various aspects of numerical modelling techniques for cohesive frictional materials, i.e. granulates, soils, rocks and concretes, and is planned as an informative seminar-like meeting.

Invited national and international experts in targeted research areas will review current developments and problems in the numerical modelling of cohesive frictional materials and provide a deeper understanding of the micro and macro description of geomaterials.

Speakers from the research group "Modelling of Cohesive Frictional Materials" will give an overview of their research topics. The advances reached within the past research period will be presented and the cooperation between the various groups will be pointed out.

DIGA

The DIGA - **Degradation and Instabilities in Geomaterials with Application to hazard mitigation** (coordinator I. Vardoulakis) is a four years research project, funded by the European Commission within the 5th framework program and is operative since October 2002.

DIGA is an interdisciplinary research and training network for young researchers in Europe, which links together institutes specializing in different domains such as geoen지니어ing, geomechanics and granular physics. The focus is on a wide range of topics concerning geomaterials, such as instabilities, phase changes, micro-mechanics, constitutive laws and thermo-poro-chemo-mechanical couplings.

DIGA supports training and research of young engineers and scientists through exchanges, formation and participation in Workshops and Conferences like CDM 2004.

<http://diga.mechan.ntua.gr>

Research Group

The research group FOR 326 'Modelling of Cohesive Frictional Materials' was established in May 1998 at the University of Stuttgart with support of the German Research Foundation DFG. The research group will celebrate six years of research in form of an International Symposium.

The research group focuses on the development of a multilevel approach for the modelling of cohesive frictional materials. Within this framework the main research areas can be found in the enhancement of the discontinuous (micro) and continuum-oriented (macro) modelling techniques with an emphasis on the transition of the results between these scales.

<http://www.uni-stuttgart.de/igs/en/dfg/index.html>

Organising Committee

Pieter Vermeer & Urs Vogler
Institute of Geotechnical Engineering

Ekkehard Ramm & Gian Antonio D'Addetta
Institute of Structural Mechanics

Hans Herrmann & Fernando Alonso Marroquin
Institute for Computational Physics

Wolfgang Ehlers & Sabine Wenz
Institute of Applied Mechanics (Civil Engineering)

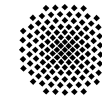
Registration and Venue

The full conference fee in case of early registration until **30th July 2004** is 200 EURO per participant and includes proceedings in a published format, coffee breaks, lunches and dinner on Monday. In case of late registration after 30th July 2004 the fee per participant is 250 EURO. After registration (please use registration form on this bulletin) all participants will receive an invoice with all details on the payment possibilities. For further information contact:

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E-Mail: cdm2004@igs.uni-stuttgart.de
<http://www.uni-stuttgart.de/igs/cdm2004.htm>

The conference will take place at the campus of the University of Stuttgart, which can be reached easily. The participants are asked to book hotel accommodations on their own. For a list of nearby hotels and guest houses visit the homepage of Stuttgart Marketing GmbH and follow the corresponding links for Hotels in Stuttgart-Vaihingen:

<http://www.stuttgart-tourist.de>



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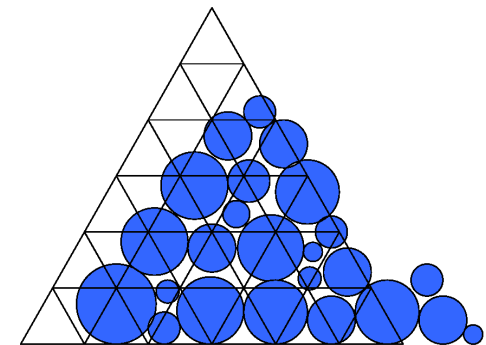
Deutsche
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2nd International Symposium on

Continuous and Discontinuous Modelling of Cohesive Frictional Materials

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Symposium organised by:

The research group "Modelling of Cohesive Frictional Materials" supported by the German Research Foundation (DFG)

The EU research and training network "Degradation and Instabilities in Geomaterials with Application to Hazard Mitigation" (DIGA)