

European Community on Computational Methods in Applied Sciences (ECCOMAS)  
 German Research Association for Underground Transportation Facilities (STUVA)  
 International Tunnelling and Underground Space Association (ITA-AITES)  
 European Commission, DG Research  
 International Association for Computational Mechanics (IACM)  
 Ruhr University Bochum, Germany  
 Graz University of Technology, Austria  
 Vienna University of Technology, Austria



### Conference Secretariat

Institute for Structural Mechanics  
 Universitätsstraße 150, IA  
 44780 Bochum  
 Tel. (+49) 234/ 32-29051  
 Fax (+49) 234/ 32-14149  
<http://www.eurotun.rub.de>

### Conference Venue

The conference will be held at Ruhr University Bochum, which is centrally located within the Ruhr Area and is accessible by public transportation from the international airports Düsseldorf, Dortmund, and Cologne-Bonn.

### Social Programme

An attractive social programme, including a reception and a banquet, will be organised for the enjoyment of both the conference participants and the accompanying persons.

### Accommodation

A sufficient number of hotel rooms have been reserved in the vicinity of the conference venue in the two-star to four-star categories. Detailed accommodation information will be available on the conference website.

### Registration Fees

	Early*	Late**
ECCOMAS-Members	€ 420	€ 470
Non-ECCOMAS-Members	€ 470	€ 520
Students	€ 250	€ 300

\*applicable until May 4, 2009

\*\*applicable after May 4, 2009

Registration fee includes the Book of Abstracts, the Conference Proceedings, attendance to all scientific sessions, coffee breaks, lunch, the reception, and the banquet.

### Important Dates

One-page abstract, deadline	December 1, 2008
Notification of acceptance	February 2, 2009
Early registration, deadline	May 4, 2009
Full-paper submission, deadline	May 4, 2009

### An ECCOMAS Thematic Conference

EURO:TUN 2009 is one of the Thematic Conferences of the European Community on Computational Methods in Applied Sciences (ECCOMAS). For further information on ECCOMAS please visit: <http://www.eccomas.org>. This conference is jointly organised with the European Integrated Project Technology Innovation in Underground Construction (TUNCONSTRUCT). For further information please visit: <http://www.tunconstruct.org>.



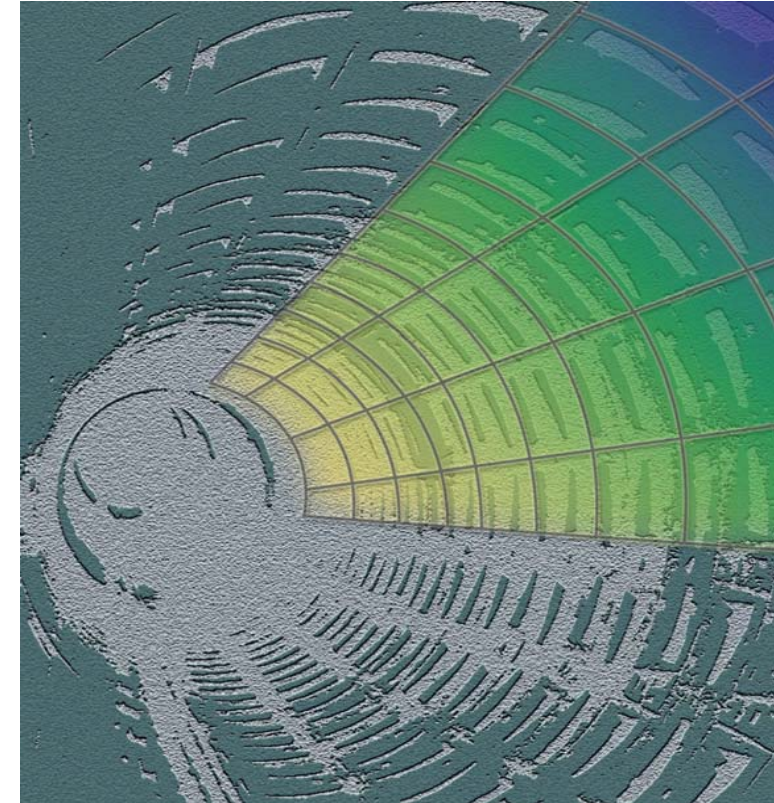
Thematic Conference

# EURO:TUN 2009

II International Conference on  
**Computational Methods in Tunnelling**

September 9-11, 2009, Bochum, Germany

An IACM Special Interest Conference



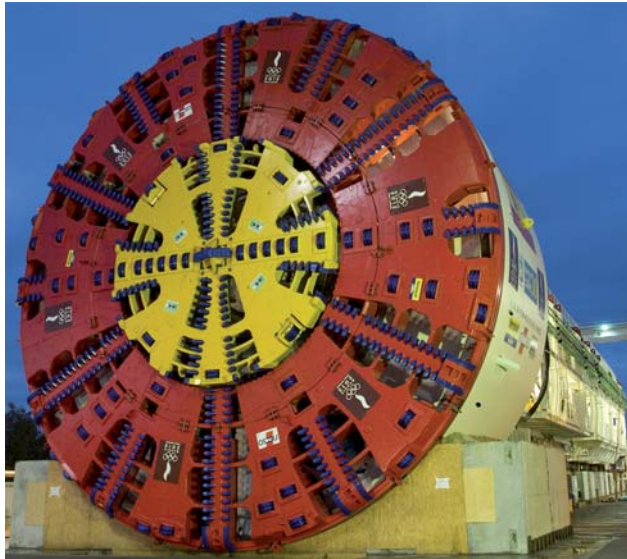
<http://www.eurotun.rub.de>

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## Conference Objectives

Computational Methods have experienced increasing application in the design, construction and maintenance of underground infrastructure. Tunnelling is characterised by continuously changing environmental conditions, a relatively high degree of uncertainty of the underlying parameters and complex interactions between the tunnelling process and its environment. In addition, new tunnelling technologies and changing requirements for the construction of tunnels (e.g. larger diameters, tunnelling in difficult ground conditions, safety concerns, life time prognoses) are placing new challenges for adequate computational methods to be used for prognoses and decisions in all phases of the design, construction, service, and maintenance of tunnels. To meet these challenges new solutions in the field of computational methods in tunnelling are required. Methods of computational mechanics are concerned, for example with the simulation of the excavation process, the realistic description of the soil/rock mass, and the materials used for support, using advanced constitutive models. More recently, hybrid concepts aiming at an integration of advanced methods of computational intelligence and computational mechanics are being developed and applied to the optimisation of the design and the construction of underground structures.

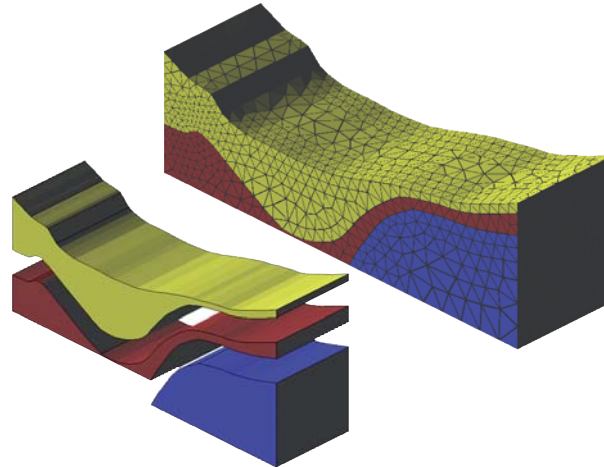
**EURO:TUN 2009** is a follow-up conference after the first successful conference **EURO:TUN 2007** held in Vienna, August 27-29, 2007. Along the same line, **EURO:TUN 2009** aims to provide a forum for scientists, developers and engineers to review and discuss novel research findings and to assess the suitability and robustness of advanced computational methods and models for the design and construction of tunnels.

## Conference Topics

The conference will be concerned with innovative computational concepts and strategies for optimised design and construction of tunnels.

Topics to be addressed are:

- ▶ spatial and temporal discretization strategies for realistic and efficient numerical analyses of tunnel excavations at various scales,
- ▶ advanced inviscid as well as time-dependent, multi-phase and multi-scale constitutive models for support materials, soils and rocks,
- ▶ methods for the prediction of tunnel face stability,
- ▶ new developments in finite element, boundary element, particle finite element, discrete element, mesh-free and hybrid methods,
- ▶ procedures for parameter identification,
- ▶ soft computing, visualisation, data mining, and expert systems in tunnelling,
- ▶ sensitivity analysis, back analysis,
- ▶ stochastic methods and methods based on fuzzy logic,
- ▶ computational methods for life cycle analysis and maintenance,
- ▶ risk analysis and
- ▶ other related topics.

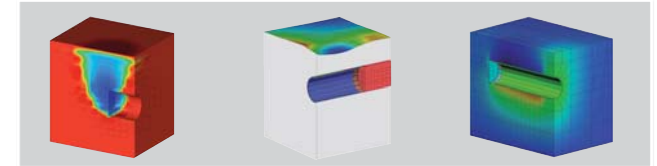


## Call for Papers

Prospective authors are kindly invited to submit a one-page abstract related to the topics of the conference electronically through the conference website by December 1, 2008. Instructions for preparing full-length paper will be provided with the notification of acceptance of the contribution.

## Exhibition

Companies and/or publishers are kindly invited to exhibit their products and services. Interested exhibitors can find all necessary information on the conference website.



## Conference Chairmen

G. Meschke	Ruhr University Bochum, Germany
G. Beer	Graz University of Technology, Austria
J. Eberhardsteiner	Vienna University of Technology, Austria
D. Hartmann	Ruhr University Bochum, Germany
M. Thewes	Ruhr University Bochum, Germany

## Local Organising Committee

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J. Stascheit	Ruhr University Bochum, Germany
G. Vollmann	Ruhr University Bochum, Germany

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