



COLLABORATIVE RESEARCH CENTER 837

# INTERACTION MODELING IN MECHANIZED TUNNELING

RUB

# INTERNATIONAL WORKSHOP:

# CUTTING TOOL - SOIL INTERACTION

5<sup>TH</sup> JULY 2013      Veranstaltungszentrum Ruhr University Bochum - Room 3  
Universitätsstraße 150 – 44801 Bochum

The SFB 837 workshop “Cutting Tool - Soil Interaction” focuses on modeling approaches for the excavation processes at the cutting wheel of tunnel boring machines in particular in soft soils.

**WORKSHOP PROGRAM** – 05. July 2013 – 12:30 - 18:00

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| <p>12:30 <b>Discrete Element Simulation of Rock Cutting Processes</b><br/>Prof. Jerzy Rojek<br/>(Polish Academy of Sciences, Poland)</p>                             | <p>15:15 Break</p>  |
| <p>13:15 <b>From Fracture to Fragmentation</b><br/>Dr. Falk Wittel<br/>(Swiss Federal Institute of Technology Zurich, Switzerland)</p>                               | <p>15:45 <b>DEM-Based Simulations of Rock Destruction</b><br/>Prof. Heinz Konietzky<br/>(Technische Universität Bergakademie Freiberg, Germany)</p> |
| <p>14:00 <b>Implications of Cutting Tool Wear in Soil on TBM Advance &amp; Development</b><br/>Dipl.-Geol. Florian Köpl<br/>(Herrenknecht AG, Germany)</p>           | <p>16:30 <b>Abrasivity Assessment and Wear Prediction for TBM Tunneling</b><br/>Dr. Heiko Käsling<br/>(Technische Universität München, Germany)</p> |
| <p>14:45 <b>Cutting and Material Transport in EPB Shield Machines: A Coupled Simulation Approach</b><br/>Prof. Klaus Hackl<br/>(Ruhr University Bochum, Germany)</p> | <p>17:15 <b>The Cutting of Soils and Rocks in Dredging</b><br/>Ir. Rudy Helmons<br/>(Delft University of Technology, The Netherlands)</p>           |
|  | <p>18:00 Workshop Dinner</p>  |



# REGISTRATION

Registration fee: € 50,-  
(Members of Ruhr University Bochum: € 25.-)

For registration please visit the workshop webpage:  
[www.ruhr.de/sfh837](http://www.ruhr.de/sfh837).