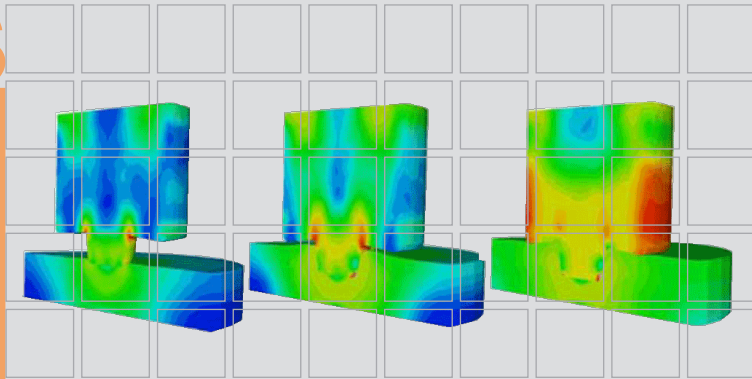




**Institute for Materials Science and Welding**  
Univ.-Prof. Dipl.-Ing. Dr.techn. Christof Sommitsch



## INVITATION

10<sup>th</sup> International Seminar  
**Numerical Analysis of Weldability**  
**24 - 26 September 2012**

**Graz - Seggau - Austria**

IIW Commission IX  
WG Mathematical Modelling of Weld  
Phenomena

# Scope and Relevant Topics

With the 10<sup>th</sup> International Seminar „Numerical Analysis of Weldability“, a tradition of successful meetings will be continued. Since the first of these events in 1991, this seminar series has developed to be a world leading conference in the growing field of the development of methods for predicting the microstructure and properties of welds. It is both, of practical importance and academic interest and it supports the philosophy of computer modelling, which helps to optimise welding processes and consumables as well as the service behaviour of welded components. Leading experts in this field attend the seminar and present their latest results in the calm atmosphere of an ancient castle.

The seminar is organized by the Institute for Materials Science and Welding of the Graz University of Technology under the sponsorship of IIW Commission IX, Working Group „Mathematical Modelling of Weld Phenomena“.

The following items (among others) of development and application of numerical analysis shall be discussed:

- Arc Phenomena, Melt Pool and Solidification
- Microstructural Modelling in Weld Metal and Heat Affected Zone
- Microstructure and Mechanical Properties
- Influence of Post Weld Heat Treatment
- Cracking Phenomena
- Residual Stresses and Distortion
- Service Behaviour of Welded Structures
- Hydrogen Effects
- Special Welding Processes
- Solid State and Friction Stir Welding
- Modelling Tools and Computer Programs

## Proceedings Book

After a peer review process, the contributions will be published as a book containing in-depth articles similar to the previous seminars.

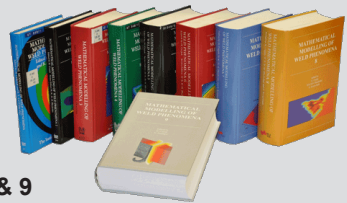
Previous books are available from:

### Mathematical Modelling of Weld Phenomena 1 - 6

Institute for Materials 1993, 1995, 1997, 1998, 2001, 2002  
Book 533, 594, 650, 695, 738, 784

### Mathematical Modelling of Weld Phenomena 7, 8 & 9

Verlag der Technischen Universität Graz, 2005, 2007, 2010



## IIW Kenneth Easterling Best Paper Award

This IIW award, which is sponsored by the Institute for Materials Science and Welding of Graz University of Technology, will be awarded for the fifth time.

It is given to the paper *“which is valued by an international committee as the best contribution made over the three years proceeding on the advancement of knowledge or practice in respect of mathematical modelling of weld phenomena“*.

# General Information

## Paper Submission

Abstracts should be submitted via the online abstract submission sheet on our website <http://iws.tugraz.at>, which will be available from September 1, 2011 (please follow the Seggau link).

Extensive articles with a substantial review content are particularly welcome, since one of the conference aims is to establish authoritative literature which is of lasting value, and sufficiently detailed to help young scientists to the field.

## Scientific Committee

**Chairman:** Christof Sommitsch, Graz University of Technology, Austria  
**Vice Chairman:** Norbert Enzinger, Graz University of Technology, Austria  
**Honorary Chairman:** Horst Cerjak, Graz University of Technology, Austria

**Thomas Böllinghaus**, Federal Institute for Materials Research and Testing Berlin, Germany

**Pingsha Dong**, School of Naval Architecture and Marine Engineering, USA

**Jesper Hattel**, Technical University of Denmark, Denmark

**Toshihiko Koseki**, The University of Tokyo, Japan

**Ernst Kozeschnik**, Vienna University of Technology, Austria

**Peter Mayr**, Chemnitz University of Technology, Germany

**Patricio F. Mendez**, University of Alberta, Canada

**Masahito Mochizuki**, Osaka University, Japan

**Jitai Niu**, Henan Polytechnic University, P. R. China

**Uwe Reisgen**, RWTH Aachen University, Germany

**Michael Rethmeier**, Technische Universität Berlin, Germany

**Ian M. Richardson**, Delft University of Technology, The Netherlands

## Registration Fee

Early bird (until May 31, 2012):

Delegate: €530,-

Accompanying person: €100,-

After May 31, 2012:

Delegate: €580,-

Accompanying person: €120,-

## Important Dates

Registration open: September 1, 2011

Abstract submission: February 29, 2012

Paper acceptance: April 30, 2012

Full paper submission: July 31, 2012

## Sponsors & Partners

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**JOIN 4+**



## Venue

The 10<sup>th</sup> International Seminar „Numerical Analysis of Weldability“ will take place at Schloss Seggau, the former bishop residence in the Styrian wine area 40 km south of Graz, Austria.



## How to reach Graz

Graz has direct scheduled flight connections served by Austrian Airlines, Lufthansa, InterSky, Robin Hood Aviation, TUifly.com, Welcome Air, Ryanair from Vienna, Innsbruck, Linz, Munich, Frankfurt, Berlin, Cologne, Düsseldorf, Friedrichshafen, Zürich and London/Stansted.

## Seminar Organisation

Graz University of Technology, Institute for Materials Science and Welding and IIW Commission IX, Working Group „Mathematical Modelling of Weld Phenomena“

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