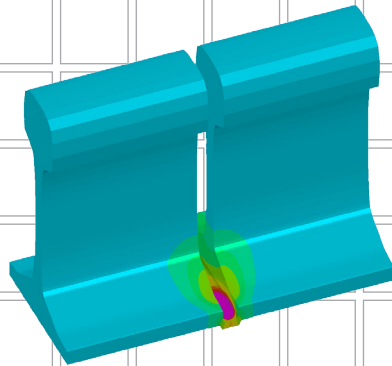


**Institute of Materials Science, Joining and Forming**  
Univ.-Prof. Dipl.-Ing. Dr.techn. Christof Sommitsch

**IMAT**  
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**MA**



# INVITATION & 1<sup>ST</sup> CALL FOR PAPERS

12<sup>th</sup> International Seminar  
**Numerical Analysis of Weldability**  
**23 - 26 September 2018**

**Graz - Seggau - Austria**



# Scope and Relevant Topics

With the 12<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 of Materials Science, Joining and Forming of Graz University of Technology.

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

- Arc Welding, Melt Pool & Solidification
- Microstructural Modelling in Weld Metal and Heat Affected Zone
- Microstructure and Mechanical Properties
- Residual Stresses and Distortion
- Cracking Phenomena & Hydrogen Effects
- Solid State and Friction Stir Welding
- Laser & Electron Beam Welding
- Special Joining Processes
- Modelling Tools and Computer Programs
- Additive Manufacturing



## Proceedings Book

After a peer review process, the contributions will be published as a book and an e-book containing in-depth articles similar to the previous seminars. Previous books 1-11 can be requested from IMAT.

## IIW Kenneth Easterling Best Paper Award

This IIW award, which is sponsored by the Institute for Materials Science, Joining and Forming of Graz University of Technology, will be awarded for the sixth 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“*.

## Post Conference Workshop announcement: Optimal Design & Computational Weld Mechanics (John Goldak)

Time: Wednesday, 26 September 2018 from 1:30 pm - 5:30 pm

Fee: € 100,-- (Post Conference Workshop places are limited so early registration is advised).

The Programme of the workshop can be found on our conference website: [www.seggau.tugraz.at](http://www.seggau.tugraz.at)

# General Information

## Paper Submission

Abstracts should be submitted via the online abstract submission tool on our website:

[www.seggau.tugraz.at](http://www.seggau.tugraz.at)

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 Chairmen:** Norbert Enzinger, Graz University of Technology, Austria  
Peter Mayr, TU Chemnitz - IFMT, Germany  
**Honorary Chairman:** Horst Cerjak, Graz University of Technology, Austria

**Murugaiyan Amirthalingam**, Indian Institute of Technology Madras, India  
**Sudarsanam Babu**, The University of Tennessee, USA  
**Thomas Boellinghaus**, Bundesanstalt für Materialforschung und -prüfung (BAM), Germany  
**Amitava De**, Indian Institute of Technology Bombay, India  
**Jesper Hattel**, Technical University of Denmark, Denmark  
**Toshihiko Koseki**, The University of Tokyo, Japan  
**Ernst Kozeschnik**, Vienna University of Technology, Austria  
**Tobias Loose**, Ingenieurbüro Tobias Loose, Germany  
**Wenya Li**, Northwestern Polytechnical University, P.R. China  
**Stephen Liu**, Colorado School of Mines, USA  
**Patricio F. Mendez**, University of Alberta, Canada  
**S-J. Na**, Department of Mechanical Engineering, KAIST, Republic of Korea  
**Uwe Reisgen**, RWTH Aachen University, Germany  
**Michael Rethmeier**, Technische Universität Berlin, Germany  
**Ian M. Richardson**, Delft University of Technology, The Netherlands  
**Kazuyoshi Saida**, Osaka University, Japan  
**Gleb A. Turichin**, Saint Petersburg State Polytechnical University, Russia  
**ChuanSong Wu**, Shandong University, Jinan, China  
**Norman Y. Zhou**, University of Waterloo, Canada

## Registration Fee

Early bird (until June 1, 2018)  
Delegate: € 630,--  
Student fee: € 480,--  
Accompanying person: € 130,--  
Workshop (with John Goldak) € 100,--

From June 2, 2018 onwards:  
Delegate: € 690,--  
Student fee: € 520,--  
Accompanying person: € 150,--

## Important Dates

Registration open: March 1, 2018  
Abstract submission: February 28, 2018  
Abstract acceptance: April 30, 2018  
Full paper submission: July 31, 2018

The student fee does not include the proceedings book „Mathematical Modelling of Weld Phenomena 12“.

## Sponsors & Partners



## Venue

The 12<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 - by Car | Train | Plane & Coach

Graz is located on the A2 and easy to get to: about 2 hours from Vienna, 4 ½ hours from Munich and 3 hours from Udine.

An eco-friendly and comfortable way to get to Graz is by train or coach. Direct train or coach connections exist between Graz and e.g. Vienna, Salzburg, Linz, Innsbruck, Klagenfurt, Munich, Stuttgart and Frankfurt.

You can currently fly direct to Graz from Frankfurt, Düsseldorf, Berlin, Stuttgart, Vienna, Palma de Mallorca and Zurich.

## Seminar Organisation

Chairman: Christof Sommitsch	Responsible person: Bettina Foessl
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