

Retrospect 2007

Extrusion Workshop and Benchmark 2007

Under the patronage of the Department of Mechanical Construction Engineering (D.I.E.M.), University of Bologna, Italy, and the Institute of Forming Technology and Lightweight Construction (IUL), University of Technology, Dortmund, Germany, the second Benchmark on Finite Element Simulation of Extrusion Processes was held in Bologna in September 2007. In combination with this, a conference focusing on current research and industrial topics such as die technology, material flow, seam welds, process optimization, microstructure prediction, and constitutive modeling took place.

The conference was joined by more than 140 participants from over 25 different countries worldwide. 2/3 of the participants came from industries such as global playing aluminum producers and extruders as well as small and medium sized companies specialized in die building or software development. In addition to this, well known researchers from universities worldwide have applied to present the current state of the art in the world of extrusion.

<http://diemtech.ing.unibo.it/extrusion07/>

Language

The conference language will be English.

Program

Wednesday, 16 September 2009

Workshop "LATEST ADVANCES IN EXTRUSION TECHNOLOGY AND SIMULATION", Invited keynote, oral papers, discussion table, poster session.

Thursday, 17 September 2009

3rd Extrusion Benchmark, presentation of the results and discussions. Oral papers, discussion table, poster session.

Organizer

Conference chair:

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CALL FOR PAPERS

LATEST
ADVANCES
IN EXTRUSION
TECHNOLOGY
AND SIMULATION



AND

3rd EXTRUSION
BENCHMARK



16-17 SEPTEMBER
2009
Dortmund-Germany



www.iul.eu/extrusion09
extrusion09@iul.tu-dortmund.de

Scope

The demand for properties and quality in extruded profiles stretches the ability of extruders and die makers to the limit: ever more complex sections, hard alloys, emerging technologies and microstructure control are just some of manufacturers' every-day concerns. Key factors for innovation and competitiveness are skilled engineering analysis and reliable software; however, no reference community exists for the extrusion analyst and there is no common base for evaluating commercial code capabilities.

This two-in-one event provides a unique opportunity:

- to learn about the state of the art of emerging technologies, innovation and simulation capabilities in the extrusion of light alloys;
- to get guidelines for best process analysis and product optimization;
- to understand the potential of your current simulation tool;
- to have the widest possible range of information on extrusion simulation today.

Who may be interested

- Extruders (R&D division, Production Managers)
- Academic and Industrial Researchers
- Die Builders (Project Managers, R&D)
- Software Houses, Software Distributors
- Press and Equipment Builders

3rd Extrusion Benchmark

Participants are asked to simulate the extrusion of an industrial case (a specially designed die for emphasizing process-related issues), on the base of die life, material properties, temperature of billet and die system, ram speed. The results will be compared to the experiments, as performed by the organizers, on the base of the temperature and the stress on the die.

The process parameters, the material flow stress and the die geometry (.stl and .iges), will be available on the conference website from April 2009:

<http://www.iul.eu/extrusion09>

Workshop

The conference is focused on the latest advances in the extrusion of light alloys and related simulation issues. Invited papers will be presented on perspectives and ongoing research in extrusion technology and simulation. Contributions with experimental validation of the results will be preferentially selected for the oral session. A poster session will also be organized.

Workshop Topics:

- Process Simulation: Models, Validation, Optimization, Material Flow, Friction;
- Product Quality: Defects, Distortions, Microstructure, Seam Welds, Maximum Press Speed;
- Materials: Hard/New Alloys, Magnesium Alloys, Composites;
- New Processes: Thixoextrusion, Hot Profile Bending, Reinforced Profiles Extrusion;
- Dies: High Production Rates; Oriented Design, Die Life, Coatings, Correction Strategies.

Publication

Workshop abstracts and benchmark results will be published in the Conference Proceedings.

All accepted papers (max. 8-page format) will be published, after peer review, in a special issue of Scientific Journal or in an Industrial Journal, depending on the author's choice. All accepted papers and oral presentations will be available on CD.

Accommodation

A limited number of rooms have been reserved at three hotels in walking distance (100 to 500 metres) of the conference venue from 15th until 17th September.

*Best Western Hotel*****

(www.westfalahallen.bestwestern.de)

*Pullman Hotel*****

(www.pullmanhotels.com)

*Steigenberger Hotel*****

(www.dortmund.steigenberger.de)

Further information on:

<http://www.iul.eu/extrusion09/en/accommodation>

Registration

Online registration on:

<http://www.iul.eu/extrusion09>

Workshop, Poster Session and Benchmark

Presenters:.....400 €

Delegates:..... 500 €

Late registration (**after 15 July 2009**):

Workshop, Poster Session and Benchmark

Presenters:..... 450 €

Delegates:..... 650 €

The registration fee includes the printed and CD versions of the conference proceedings, coffee-breaks, 2 lunches and social dinner.