

2010-05-30

Welcome Reception: Attendees and guests are invited to start the IDDRG Conference on Sunday evening with a welcome reception hosted by the major of the city of Graz which will give you a chance to renew acquaintances and to meet new friends. The reception will be held at 6-8 pm at the city hall which lies in the heart of Graz.

18:00 - 20:00, Welcome Reception: Major of the City of Graz

2010-05-31

Registration

08:00 - 10:00, Auditorium: Old University

Invited Lectures

10:00 - 12:00, Auditorium: Old University

A-AAIL-1

10:00 - 10:20 Resource Efficiency in Forming Technology - Chances for Competitiveness
Reimund Neugebauer

A-AAIL-2

10:20 - 10:50 How started IDDRG?
Alain Col

A-AAIL-3

10:50 - 11:20 Results of IDDRG 2009 Survey on the Most Important Material Property Data for Numerical Analysis
B.S. Levy

Lunch and View Posters & Exhibits

12:00 - 13:00, Seminary Hall: Old University

Hot Stamping 1

13:00 - 15:00, Auditorium: Old University

A-HS1-1

13:00 - 13:30 Further development of manganese boron steels for the lightweight design of body in white structures
Franz-Josef Lenze, Janko Banik, Sascha Sikora, Thomas Gerber

A-HS1-2

13:30 - 14:00 Influence of post uniform tensile and bending properties on the crash behaviour of AHSS and press-hardening steel grades
Patrick Larour, Heinrich Pauli, Thomas Kurz, Thomas Hebesberger

A-HS1-3

14:00 - 14:30 Thermo-Mechanical Properties of Tailor Welded Blanks in Hot Sheet Metal Forming Processes
Klaus Lamprecht, Günter Deinzer, Anton Stich, Jürgen Lechler, Thomas Stöhr, Marion Merklein

A-HS1-4

14:30 - 15:00 Significant Findings and Innovative Procedures for the Process - Secure Press Hardening of Laser Welds in Hotform Blanks
Max Brandt, Christian Dornscheidt, Lukas Korves, Jörg Maas, Dietmar Schaftinger, Stephan Selle, Sascha Sikora

Material Models 1

13:00 - 15:00, SE 130: Priest Seminary

F-MM1-1

13:00 - 13:30 Advanced Constitutive Laws for Describing Plastic Anisotropy: Material Parameters Identification and their Impact on Finite Element Computation
Salima Bouvier, Simon-Serge Sablin

F-MM1-2

13:30 - 14:00 Material modeling of 980MPa dual phase steel sheet based on biaxial tensile test and in-plane stress reversal test
Rena Saito, E. Iizuka, T. Kuwabara

F-MM1-3

14:00 - 14:30 A discussion of benefits and challenges by using multiparameter yield locus models in FEM-simulation
Thorsten Beier, Joerg Gerlach, Lutz Kessler, Michael Linnepe

F-MM1-4

14:30 - 15:00 Material Modeling for Stochastic Simulation
Vera Gödel, Christoph Annen, Marion Merklein

Coffee break

15:00 - 15:30, Seminary Hall: Old University

Hot Stamping 2

15:30 - 17:30, Auditorium: Old University

A-HS2-1

15:30 - 16:00 Improvement of Mechanical Properties and Microstructure of 22MnB5 Steel by Hot Stamping and Direct Cooling
Fernando Flandoli, Sergio Tonini Button

A-HS2-2

16:00 - 16:30 Transformation kinetics of the hot stamping steel 22MnB5 in dependency of the applied deformation on the austenitic microstructure
Marion Merklein, Thomas Svec

A-HS2-3

16:30 - 17:00 Experimental and Numerical Investigations on Micro structural Evolution during Hot Stamping
Bernd-Arno Behrens, Philipp Olle, Grygoriy Gershteyn, Kathrin Voges-Schwieger

A-HS2-4

17:00 - 17:30 Microstructure and Mechanical Properties in the Transition Zone of a Low Carbon Boron Steel after Partial Hardening
Mario Saeglitz, Karsten Bake, Ulrich Gernert

Tools 1

15:30 - 17:30, Auditorium II: Old University

C-Tool1-1

15:30 - 16:00 Tool degradation during sheet metal forming of three stainless steel alloys

Boel Wadman, Peter Soe Nielsen, Daniel Wiklund, Niels Bay, Erik Madsen, Erik Schedin

C-Tool1-2

16:00 - 16:30 Concepts using Carbon Fibre Reinforced Plastic for Micro Punching Tools

Ralf Kolley, Robert Vollmer, Robert Veit, Andreas Zöttl

C-Tool1-3

16:30 - 17:00 Investigation of segmented hydro-elastic blank holder for deep drawing

Bernd-Arno Behrens, Sven Hübner, Claus-Peter Eckold, Peter Groche, Metin Ertugrul

C-Tool1-4

17:00 - 17:30 Measuring and Simulation of Deformations on Sheet Metal Forming Die

Bernd Haller, Károly Kardos, Imre Czinege, Attila Buczkó

Material Models 2

15:30 - 17:30, SE 130: Priest Seminary

F-MM2-1

15:30 - 16:00 Finite-element modelling of Nakajima tests in due consideration of anisotropic ductile damage

Georg Falkinger, Florence Andrieux, Dirk Helm, Hermann Riedel

F-MM2-2

16:00 - 16:30 Forming simulation of aluminum car body sheet with different yield models and comparison with experiment

Christian Lange, Frédéric Bron, Paul Hänggi, Dominique Daniel, T. Möller, H. Friebe, H. Gese, Christian Leppin

F-MM2-3

16:30 - 17:00 A Modification of Combined Kinematic/Isotropic Hardening Behavior at Elevated Temperatures for Magnesium Alloy Sheet

Nguyen Duc-Toan, Park Jin-Gee, Kim Young-Suk

F-MM2-4

17:00 - 17:30 Simulation of Titanium Alloys

Philip Peters, Pavel Hora

Applied Finite Element Analysis 1

15:30 - 17:30, SE 221: Priest Seminary

G-FEA1-1

15:30 - 16:00 Advantages & Limitations of Direct vs Indirect Finite Increment Technologies for Blank Size & Trim Line Development for MultiStage Stampings

Victor Apanovitch, Stefan Huhn, Derek Peeling, Dmitriy Medvedyev

G-FEA1-2

16:00 - 16:30 Finite Element Simulation of Electro Hydraulic Forming

Arne Melander, Aldin Delic, Anders Björkblad, Pasi Juntunen, Ludovic Samek, Leire Vadillo

G-FEA1-3

16:30 - 17:00 Virtual Sensitivity Analysis of the Cooling Process within the Press Hardening Process

Miloslav Medricky, R. Struck, J. Poelmeyer, P. Olle, B.-A. Behrens

G-FEA1-4

17:00 - 17:30 Mechanics of Forming Ring Disks

Ernest A. Nazaryan, R. M. Avakyan, M. M Arakelyan, M. A. Kahrizi

Styrian Evening: On Monday evening we want to show you some of these delicious products and the styrian culture at the Styrian Tavern Pölzer.

18:00 - 22:00, Styrian Evening: Tavern Pölzer

2010-06-01

Hot Stamping 3

08:30 - 10:00, Auditorium: Old University

A-HS3-1

8:30 - 9:00 Simulation techniques for robust process layout of hotforming processes
Thomas Schoenbach

A-HS3-2

9:00 - 9:30 Cooling of Tools for Hot Stamping Applications
Ralf Kolleck, Wolfgang Weiß, Peter Mikoleizik

A-HS3-3

9:30 - 10:00 Further Results in Blanking form - hardened ultra high strength Manganese-Boron-Steels with Innovative Tools and Tool Steels
Benedikt Krönauer, Martin Hirsch, Roland Golle, Hartmut Hoffmann, Matthias Golle, Gerhard Jesner, G. Pelloso, L. Baron, Michael Hermann

Tools 2

08:30 - 10:00, Auditorium II: Old University

C-Tool2-1

8:30 - 9:00 Tribological properties of steels and the effect of lubrication when punching UHS sheet
Fredric Bergström

C-Tool2-2

9:00 - 9:30 Characterization of sputtered laboratory scale V - Al - C - N hard coatings and industrial scale-up for deposition on segmented forming tools for the automotive industry
Carlos Ziebert, Michael Stüber, Sven Ulrich, Szilárd Kolozsvari, Peter Pesch, Stefan Wöstmann

C-Tool2-3

9:30 - 10:00 Extending Tool Life Using Simulation-Based Wear Prediction
Axel Maurer

Material Characterization 1

08:30 - 10:00, SE 130: Priest Seminary

E-MC1-1

8:30 - 9:00 The forming limit curve as a measure of formability - Is an increase of testing necessary for robustness simulations?
Joerg Gerlach, Lutz Kessler, Axel Köhler

E-MC1-2

9:00 - 9:30 New Time Dependent Method for Determination of Forming Limit Curves Applied to SZBS800
Marion Merklein, Andreas Kuppert, Stefan Mütze, Ansgar Geffert

E-MC1-3

9:30 - 10:00 Forming limit curve based on shear under tension failure criterion

Mateusz P. Sklad, Jozef D. Verhaeghe

Ultra high strength Steels 1

08:30 - 10:00, SE 221: Priest Seminary

A-UHSS1-1

8:30 - 9:00 Effects of the Initial Diameter of Bore and the Planar Anisotropy of n value and r value on Fracture Behavior of HSS by Flat-Bottomed Cylindrical Punch forming

Yasuhiro Ito, Yoshiaki Nakazawa

A-UHSS1-2

9:00 - 9:30 Research in Deep-Draw Forming of High - Strength Steel Sheet Using a NC Servo Press Machine

Hiroyuki Yamashita, H. Nakai, E. Onose, T. Higaki, M. Sayama

A-UHSS1-3

9:30 - 10:00 Fabrication and Testing of Advanced High Strength Steel Tubes for Hydroforming Applications

Pierre Martin, M. Rashid, R. Soldaat, E. Biro

Coffee break

10:00 - 10:30, Seminary Hall: Old University

Hot Stamping 3

10:30 - 12:00, Auditorium: Old University

A-HS4-1

10:30 - 11:00 Roller Hearth Furnaces for Hot - Form Hardening

Harald Lehmann

A-HS4-2

11:00 - 11:30 Potentials of Induction Heating used in Industrial Applications for HSS-Material

Holger Schülbe, Bernard Nacke

A-HS4-3

11:30 - 11:30 Inductive Heating of Al/Si-coated Boron Alloyed Steels

Robert Veit, Ralf Kolleck

Tools 2

10:30 - 12:00, Auditorium II: Old University

C-Tool21

10:30 - 11:00 Strategies to Increase the Tool Performance in Punching Operations of UHSS

Ingrid Picas, Ricardo Hernández, Daniel Casellas, Isaac Valls

C-Tool22

11:00 - 11:30 Investigation of a composite cast cutting tool for blanking of AHSS sheet materials

Andreas Mackensen, Martin Ostermair, Hartmut Hoffmann

C-Tool23

11:30 - 12:00 Surface topography on trimming dies and the influence of wear
Per Jonsson, Johan Berglund, Kenneth Kjellsson, Bengt-Göran Rosén

Material Characterization 1

10:30 - 12:00, SE 130: Priest Seminary

E-MC11

10:30 - 11:00 Assessment of Test Methods for Mechanical Properties of Steel Sheets

Jae-Wook Lee, H. W. Lee

E-MC12

11:00 - 11:30 The influence of curvature on FLC's of mild steel, (A)HSS and aluminium

Eisso H. Atzema, Erik Fictorie, A.H. Van Den Boogaard, John M. M. Droog

E-MC13

11:30 - 12:00 Modeling and Simulation of Formability Tests

Imre Czinege, Károly Kardos, Szabolcs Szalai

Joining

10:30 - 12:00, SE 221: Priest Seminary

H-Join-1

10:30 - 11:00 Improvement of the Welding Process for High Strength Steels by Assistance of Induction Heat Treatment

Martin Mach, Holger Schülbe, Bernard Nacke

H-Join-2

11:00 - 11:30 Influencing Welding Residual Stresses of HSS by Mechanical Post Weld Treatments

M. Rahman, A. Hütter, N. Enzinger, C. Sommitsch

H-Join-3

11:30 - 12:00 Joining of Ultra High Strength Steels for Lightweight Body Shell Design in Automobile Manufacturing

Gert Weber, H. Gaul, M. Rethmeier

Lunch and View Posters & Exhibits

12:00 - 13:00, Seminary Hall: Old University

Ultra high strength Steels 2

13:00 - 15:00, Auditorium: Old University

B-UHSS1-1

13:00 - 13:30 Controlling Factors for Mechanical Property of Ultra HSS
Hiroshi Takechi

B-UHSS1-2

13:30 - 14:00 Determination of the formability of DP-steels by a combination of experimental methods and FE-simulations
Mats Sigvant, Kjell Mattiasson, Mats Larsson

B-UHSS1-3

14:00 - 14:30 Inflatable side impact beams in martensitic steel
Svante Fält, Jan-Erik Hedin, Björn Carlsson, Peter Alm, Nelson De Oliveira, Joachim Larsson

B-UHSS1-4

14:30 - 15:00 Innovative high and ultra high strength steel concepts for cold forming applications
Ralf Kolleck, Steffen Raschka, Dieter Krech, Thomas Thülig

Tools 3

13:00 - 15:00, Auditorium II: Old University

C-Tool3-1

13:00 - 13:30 Hard cutting of tailored hardened 22MnB5
Till Laumann, Ingrid Picas, Marc Grané, Daniel Casellas, M. Dolors Riera, Isaac Valls

C-Tool3-2

13:30 - 14:00 Formability improvement with independent die and punch temperature control
Reza Bagheriasl, Kamyar Ghavam, Michael Worswick

C-Tool3-3

14:00 - 14:30 Investigation of Dies Materials in Hot Stamping Operations
Andrea Ghiotti, Daniele Pellegrini, Stefania Bruschi

C-Tool3-4

14:30 - 15:00 Effect of die roughness on coefficient of friction in hot stamping
Akira Yanagida, Yudai Tanaka, Akira Azushima

Material Characterization 3

13:00 - 15:00, SE 130: Priest Seminary

E-MC3-1

13:00 - 13:30 Comparison of forming and fracture limits of cold rolled high-strength austenitic stainless steels
Antti Korhonen, Timo Manninen, Jari Larkiola

E-MC3-2

13:30 - 14:00 Failure criteria usage when modelling trimming processes
Niclas Stenberg

E-MC3-3

14:00 - 14:30 Inverse Identification of Kinematic Hardening Parameters with Bending Tests
Maria Doig, M. Kaupper, M. Kraska, G. Eßer, Marion Merklein, Karl Roll, Lutz Kessler

E-MC3-4

14:30 - 15:00 Uniaxial tension/compression tests and cyclic bending tests for hardening parameter identification
Per-Anders Eggertsen, Kjell Mattiasson

Applied Finite Element Analysis 2

13:00 - 15:00, SE 221: Priest Seminary

G-FEA2-1

13:00 - 13:30 Numerical investigations in micro hydroforming and design of an experimental set-up for material characterization of micro tubes
Lu Yanxia, Sebastien Thibaud, Boudeau Nathalie

G-FEA2-2

13:30 - 14:00 Simulation Based Process Optimization of Aluminium Sheet Metal Deep Drawing at Elevated Temperatures
Johannes Winklhofer, Gernot Trattig, Christoph Lind, Christof Sommitsch, Hannes Feuerhuber

G-FEA2-3

14:00 - 14:30 Metamodeling based Planning and Control of Sheet Metal Forming Processes
Christoph Annen, Pit Pillatsch, Pavel Hora

G-FEA2-4

14:30 - 15:00 Fracture and damage behaviour of advanced high strength steels under difference loading conditions
Patrick Schäberle, Karl Roll, Rudolf Kawalla, Manfred Stilz

Coffee break

15:00 - 15:30, Seminary Hall: Old University

Ultra high strength Steels 3

15:30 - 17:30, Auditorium: Old University

B-UHSS3-1

15:30 - 16:00 Local heat treatment of ultra-high-strength steels – an opportunity to extend the range of car body components
Michael Heyde, Karl Roll, Rudolf Kawalla, Georg Bergweiler, Jürgen Kaiser

- B-UHSS3-2
16:00 - 16:30 Serial process simulation for deep drawing stainless steel kitchen sinks with a heated research tool
Evelin Ratte, Christian Koroschetz, Ralf Kolleck, Velika Kiroff
- B-UHSS3-3
16:30 - 17:00 A method for measuring residual stresses in rollformed hat profiles of ultra high-strength steel
Seyed B. Hosseini, Elisabeth Sagström, Peter Ottosson, Lars Troive
- B-UHSS3-4
17:00 - 17:30 Study on 3D spring back of ultra high strength steel sheets for rear member model
Koichi Sato, Tohru Yoshida, Eiji Isogai, Koji Hashimoto, Yukihisa Kuriyama

Tools 4

15:30 - 17:30, Auditorium II: Old University

- C-Tool4-1
15:30 - 16:00 Integration of an Active Forming Die in a Modular Tool System for Sheet-Bulk Metal Forming
Bernd-Arno Behrens, Sven Hübner, Milan Vucetic
- C-Tool4-2
16:00 - 16:30 Improvements in springback calculation and die compensation taking into account buckling, bottoming and shape control
Martin Skrikerud, C. Borot
- C-Tool4-3
16:30 - 17:00 Springback prediction of high precision thin metallic parts produced by multi-step stamping
Mohamed Azaouzi, Salim Belouettar, Gaston Rauchs, Ahmed Makradi
- C-Tool4-4
17:00 - 17:30 Forming of WC coating structure by electric exploding of contact
Evgeny Grigoryev

Material Characterization 4

15:30 - 17:30, SE 130: Priest Seminary

- E-MC4-1
15:30 - 16:00 The double bending test: a promising new way for an optimal characterization of cut-edges ductility
Olivier Bouaziz, Stéphane Douchamps, Laurent Durrenberger, A. Bui-Van
- E-MC4-2
16:00 - 16:30 Comparison of bending and tensile properties for automotive grade strip steel
Matthias Weiss, Bernard Rolfe, Peter Hodgson

E-MC4-3

16:30 - 17:00 Development of compact biaxial tensile testing apparatus using conventional compression testing machine and evaluation of the test results

Tatsuya Nagayasu, Susumu Takahashi, Toshihiko Kuwabara

E-MC4-4

17:00 - 17:30 Application of optical strain measuring systems to determine plastic anisotropy and theoretical forming limit curves in AHSS

David Gutiérrez, Antoni Lara, Daniel Casellas, José Manuel Prado

Applied Finite Element Analysis 3

15:30 - 17:30, SE 221: Priest Seminary

G-FEA3-1

15:30 - 16:00 How to Accurately Model AHSS in Numerical Stamping Simulation

Xavier Lemoine

G-FEA3-2

16:00 - 16:30 Numerical Simulation of Rope Roller Hemming in the case of Aluminum Alloys

Xing Hu, Shuhui Li, Yixi Zhao, Z.Q. Lin

G-FEA3-3

16:30 - 17:00 Numerical Simulation of two types of hemming processes

Amir Oueslati, R. Billardon, O. Hubert, V. Nalewajk

G-FEA3-4

17:00 - 17:30 New approaches for the validation of the simulation of roller hemming processes

Urs Eisele, Karl Roll, Mathias Liewald

Conference Banquet: At the Old University we offer you a splendid dinner on Tuesday.

19:30 - 22:30, Auditorium: Old University

2010-06-02

Industrial Session

08:30 - 10:00, Auditorium: Old University

J-IS-1

8:30 - 9:00 On the Role of the Finite vs. Conventional Infinitesimal Incremental Technologies for Multi Stage Stamping Simulation
Stefan Huhn, Victor Apanovitch, Viktor Petchenov

J-IS-2

9:00 - 9:30 Hot Stamping, a new innovative manufacturing technology in the field of automotive engineering
Hanspeter Kömpf, Annett Winkler

J-IS-3

9:30 - 10:00 Springback compensation as an integral component of the CAD/CAM process chain in draw die manufacturing
Eckhard Metzger, Brunhilde Lutz

Special Processes

08:30 - 10:00, Auditorium II: Old University

D-SP-1

8:30 - 9:00 Applasting - Low Pressure Gas Forming Technology For Boron Steel Tubes
Leire Vadillo, Iñaki Perez, Izuru Hori, Jose Ignacio Zarazua, Ángela Mangas, Juan San José, Marian Angeles Gutierrez, Uwe Paar

D-SP-2

9:00 - 9:30 Impulse magnetic cutting of hollow profiles
Paul Maier-Komor, Hartmut Hoffmann, Martin Ostermair

D-SP-3

9:30 - 10:00 High-Strain-Rate Forming of Aluminum and Steel Sheets for Automotive Applications
Aashish Rohatgi, Elizabeth V. Stephens, Ayoub Souлами, Richard W. Davies, Mark T. Smith

Material Characterization 5

08:30 - 10:00, SE 130: Priest Seminary

E-MC5-1

8:30 - 9:00 Fractional behaviour at cyclic stretch-bending
Wilko C. Emmens, A.V. Kazantzis, J.Th.M. De Hosson, A.H. Van Den Boogaard

E-MC5-2

9:00 - 9:30 Determination of hole-flangeability for thin sheets
Feliks Stachowicz

E-MC5-3

9:30 - 10:00 Investigation of the equivalent plastic strain within a flow formed steel work piece determined by micro-indentation hardness and grain-shape analysis
Meysam Haghshenas, Robert J. Klassen, Jeff T. Wood

Evaluation and Measurement

08:30 - 10:00, SE 221: Priest Seminary

I-EM-1

8:30 - 9:00 Predicting the Occurrence of Cosmetic Defects in Automotive Skin Panels
Sumit Hazra, D. Williams, R. Roy, R. Aylmore, A. Smith

I-EM-2

9:00 - 9:30 Online Acquisition of Material Data to Control Perturbations Caused by Varying Material Properties for Forming Processes.
Jörg Heingärtner, Robert Seelos, Marcel Born, Pavel Hora, Anja A. Neumann, Dirk Hortig

I-EM-3

9:30 - 10:00 3D Digitizing in Optimization of Sheet Metal Processing
Konstantin Galanulis, Carsten Reich

Coffee break

10:00 - 10:30, Seminary Hall: Old University

Industrial Session

10:30 - 12:00, Auditorium: Old University

J-IS-1

10:30 - 11:00 Innovative tool steels for hot stamping and blanking of press hardened steels
Gerhard Jesner, Ingo Siller

J-IS-2

11:00 - 11:30 Hot forming processes for high productivity
Jens Aspacher

J-IS-3

11:30 - 12:00 Hot forming die technologies from AP&T
Johan Friberg

Special Processes

10:30 - 12:00, Auditorium II: Old University

D-SP1

10:30 - 11:00 Fracture Forming Lines in Single Point Incremental Forming
M. Beatriz Silva, Luís M. Alves, M. Leopoldina Alves, Paulo A.F. Martins

D-SP2

11:00 - 11:30 Determination of Forming Limit Diagrams for Single Point Incremental Sheet Metal Forming

Karl Kuzman, Miklós Tisza, Ales Petek, Péter Kovács

D-SP3

11:30 - 12:00 Application of Expert System for Formability Analysis of Extrusion Process

Rahulkumar S. Hingole, V.M. Nandedkar

Material Characterization 5

10:30 - 11:30, SE 130: Priest Seminary

E-MC51

10:30 - 11:00 Indentation Limit Diagram (ILD) assessment of metallic sheets using spherical instrumented indentation test

Philippe Brammer, Gérard Mauvoisin, Olivier Bartier, Xavier Hernot, Simon-Serge Sablin

E-MC52

11:00 - 11:30 Tube bulging test: evaluation of errors on material characterization

Boudeau Nathalie, Benouirane Abdel Hakim, Michel Gerard

Evaluation and Measurement

10:30 - 11:30, SE 221: Priest Seminary

I-EM1

10:30 - 11:00 Indication of cracking during pressing of advanced thin plates using an AE-based monitoring system

Per Gabrielson, Thomas Skåre, Jan-Eric Ståhl

I-EM2

11:00 - 11:30 Numerical comparison and verification of FEA in sheet metal forming by optical measurements of large and complex parts

Harald Friebe, Markus Klein, Konstantin Galanulis

Closing Session

12:00 - 12:30, Auditorium: Old University

K-CS-1

12:00 - 12:30 Proform: Profile Forming Innovation

Maria Angeles Gutierrez, I. Eguia, S. Berner, C. Hennigs, A. Sedlmaier, A. Agnello, J. Bahillo

Lunch

12:30 - 13:30, Seminary Hall: Old University

Technical Tour

13:30 - 15:30, Old University: Old University