

Innovations in metal forming

(23 - 24 settembre 2004 - Brescia, Italy)

Organizzato e sponsorizzato dall'**Università di Brescia e ERC for NSM**
Col patrocinio dell'**Associazione Italiana di Tecnologia Meccanica (AITeM)**
Presso l'Università di Brescia, via Branze 38, Brescia, Italy

L'evento, organizzato in collaborazione con l'Engineering Research Center (OHIO State University, USA), e con numerosi centri di ricerca sia universitari che privati (TRW, CRF, Tenaris-Dalmine, BMW, WZL), ha lo scopo di riunire esperti e ricercatori operanti nell'area del "metal forming", con lo scopo di fare il punto della situazione sullo sviluppo e sul perfezionamento di alcune tecnologie riguardanti la deformazione plastica quali: idroformatura di tubi e lamiere (con presentazione dell'impianto sperimentale realizzato presso la nostra Facoltà), formatura incrementale, laminazione obliqua, stampaggio massivo, superplasticità, trafilatura, imbutitura, thixoformatura, tematiche relative alla costruzione di stampi ecc.

Al convegno parteciperanno esperti mondiali di:

- simulazioni e ottimizzazione dei processi di forgiatura, formatura, idroformatura e taglio della lamiera;
- stampaggio di precisione a freddo con stampi progressivi;
- stampaggio a caldo, superplasticità;
- controllo delle operazioni di stampaggio;
- fresatura ad alta velocità;
- lavorazioni ad alta velocità e prototipazione di prodotti e processi.

Comitato organizzatore

Prof. Elisabetta Ceretti (elisabetta.ceretti@ing.unibs.it)

Prof. Claudio Giardini (claudio.giardini@ing.unibs.it)

Ing. Aldo Attanasio (aldo.attanasio@ing.unibs.it)

Ing. Carlo Contri (carlo.contri@ing.unibs.it)

Ing. Ferdinando Brisotto (ferdinando.brisotto@ing.unibs.it)

Web

<http://tecmecc.ing.unibs.it/reunion2004>

Sponsor

Fondo di Ateneo dell'Università degli Studi di Brescia.

Si riporta di seguito il programma del convegno. Le imprese interessate sono invitate a chiedere il documento per l'adesione e la registrazione alla conferenza alla Segreteria di Apindustria (tel. 03023076 - e-mail: segreteria@apindustria.bs.it).

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Thursday
September 23, 2004

8:30 Opening and Welcome

Session I
Fundamentals of Metal Forming

Chairman: *prof. F. Micari*

9:00 – 10:00

- 1.1 "Selected Research Results in Stamping, Hydroforming and Forging".
*T. Altan, The Ohio State University
Columbus, OH, USA.*
- 1.2 "Study of Sheet Characterization and Formability"
*P. Bariani, University of Padova
Italy*

10:00 – 10:30 Coffee break

10:30 – 12:00

- 1.3 "Tool Material Aspects in Forming Stainless Steel with Easy-to-Clean Lubricants"
*I. Heikkilä, E. Van der Heide, E.D. Stam, N. Akdut,
F. Clarysse, H. Giraud, G. Lovato, P. Caenen
Swedish Institute for Metals Research
Stockholm, Sweden*
- 1.4 "FE-simulation of Micro-tribological Contacts in Cold Forming: Experimental Validation"
*F. Klocke, G. Messner
WZL Aachen University
Germany*
- 1.5 "Numerical and Physical Simulation of the Post Deformation Cooling Phase of C70 Connecting Rods"
*P. Bariani, S. Bruschi, T. Dal Negro
University of Padova
Italy*

12:00 – 13:30 Lunch

Session II
**Cold, Warm, Hot
and Superplastic Forming**

Chairman: *prof. F. Klocke*

13:30 – 15:00

- 2.1 "Optimisation of the Mannesmann Effect by Process Simulation"
*L. Montelatici, TENARIS S.p.A.
Dalmine, Italy*
- 2.2 "Influence of Process Parameters for Thixotropic Alloys" A. Barcellona, University of Palermo, Italy
- 2.3 "Experimental and Simulative Results of Necking Operation on Aluminum Can"
*E. Foresti, Frattini S.p.A.
Seriata, Italy*

15:00 – 15:30 Coffee break

15:30 – 16:30

- 2.4 "Optimisation of Superplastic Forming processes"
*L. Carrino, G. Giuliano, S. Franchitti
University of Cassino
Italy*
- 2.5 "Numerical simulation of the Super Plastic Forming Process of the EFA – 2000 Under Carriage Door"
*F. Giordano, G. Iannuzzo e A. Natale
Alenia*

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Friday
September 24, 2004

8:30 Opening and Welcome

**Session III
Stamping and Hydroforming**

Chairman: prof. P. Bariani

8:30 – 10:00

- 3.1 “Design of a Modular System for Tube and Sheet Hydroforming”
A. Attanasio, E. Ceretti, C. Contri, C. Giardini
University of Brescia, Italy
- 3.2 “Development of a one Step HydroFrame Concept”
K. Tibari
Institute for Production Engineering and Forming Machines
Darmstadt, Germany
- 3.3 “Development of a Project in the Production of Sheet Components”
G. Gallinaro
Lamier S.p.A.
Torino, Italy.

10:00 – 10:30 Coffee break

10:30 – 12:00

- 3.4 “Tubular Semi-finished Product Characterization and Optimization for Tube Hydroforming”
G. Von Breitenbach
University of Darmstadt, Germany
- 3.5 “Process Parameter Optimisation in Sheet Hydroforming”
M. Tolazzi, M. Geiger
University of Erlangen, Germany
- 3.6 “Optimal Design of Tube Hydroforming Processes through the Integration of Numerical Simulations and Artificial Intelligence Tools”
F. Micari
University of Palermo, Italy

- 3.7 “The Development, from Start to Finish, of a Hydroformed Motor Bicycle Side Rail”
W. Heinemann
AP&T Schaefer

12:00 - 13:30 Lunch

**Session IV
Enabling Technologies**

Chairman: prof. T. Altan

14:00 – 15:30

- 4.1 “Production of High Quality Forgings by Means of Cast Stock”
W. Sterzl
Alcan Inc.
- 4.2 “Verification of Numerical Forming Simulation of High Strength Steels”
C. Arwidson, L. Bernspång, A. Kaplan
Swedish Tools & Die Technology
Luleå, Sweden
- 4.3 “New Development in the Field of Prototyping”
J. Breiting
BMW
Munich, Germany

15:30 – 16:00 Coffee break

16:00 – 17:00

- 4.4 “Innovation in Sheet Metal Forming of Automotive Components”
M. Lai
CRF (Fiat Research Centre)
Torino, Italy
- 4.5 “Negative Incremental Forming of Aluminium Sheets”
M. Strano
University of Cassino
Italy

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Organized and sponsored by **ERC/SNM - The Ohio State University, AITeM, University of Brescia - Department of Mechanical Engineering.**

Location: University of Brescia - Faculty of Engineering - Via Branze, 38 - 25123 Brescia, Italy

REGISTRATION FORM

First name: _____ Last name: _____

Title: _____ Division: _____

Company: _____

Mailing address: _____

P.O. Box / Mail stop: _____

City: _____ State: _____ Zip Code: _____

Country: _____

Phone: _____ Fax: _____

e-mail: _____

PLEASE COMPLETE THE FOLLOWING SECTION ONLY IF YOU ARE A FORMER VISITING SCHOLAR OR STUDENT OF THE ERC/NSM AT THE OHIO STATE UNIVERSITY

- 1) Will you attend the ERC/NSM Reunion Meeting on Friday, September 24th, 2004?
 Yes No
- 2) Including myself, I will arrive with _____ people.
(Please note that you are welcome to invite your spouse or a friend)

Registration Fee and Method of Payment:

Conference fee: 200,00 (150,00 for AITeM Members) VAT included, Bank Transfer cost excluded. We regret that we are unable to accept payment via credit card or check; the acceptable method is the Bank Transfer. Please make your payment before coming, the invoice will be mailed directly to you.

Please make your payment to: **INNTEC Srl**
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Please send also a copy of your bank order to the following fax number: +39 030 396966.

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Three ways to register...

1) Fax

Your completed registration form to prof. Elisabetta Ceretti at +39 030 3702448

2) Mail

Your completed registration form to:
Prof. Elisabetta Ceretti
University of Brescia - Faculty of Engineering
Via Branze 38 - 25123 Brescia - ITALY

3) E-mail

Your completed registration form to Prof. Elisabetta Ceretti at elisabetta.ceretti@ing.unibs.it

Additional Information

For additional information:

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