

December 4–5, 2018 our 13th International Nordmetall Colloquium will take place at Wasserschloss Klaffenbach in Germany.

Especially, our conference brings together national authorities, industrial and scientific partners and shows how basic knowledge can be transferred into civil and safety applications.

The colloquium starts on December 4, 2018 at 9 am and ends on December 5, 2018 at 2 pm. A welcome reception is organized on December 3, 2018 starting at 6 pm. The welcome evening takes place at company Nordmetall GmbH in Adorf, where a dinner and experimental demonstrations will be organized.

Our Nordmetall team will be happy to welcome you in winter time at the foot of the Ore Mountains. For further planning we would like to please you, to give feedback until October 31, 2018. Please use the attached form. If you have any questions, please don't hesitate to contact us.

We are looking forward to welcome you at Nordmetall.

Dr. Norman Herzig & Prof. Dr.-Ing. Dr. h.c. L. W. Meyer

Conference Fee:

Speaker + government: free

Academic: 220,-€

Early Bird: 170,-€ (September 30, 2018)

Industry: 420,-€

Early Bird 350,-€ (September 30, 2018)

The prices do not include value added tax (VAT). The current VAT will be added to your invoice. Cancelling your registration will be free until October 31, 2018. Later cancellations will be charged by 80% of the conference fee. To name a replacement person of the same affiliation instead of cancellation is of course free of charge.

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Veranstaltungsort/ conference venue:

Wasserschloss Klaffenbach
Wasserschlossweg 6
09123 Chemnitz, Germany

Preliminary Agenda of the 13th Nordmetall Colloquium 2018

Dec. 3: 18:00 Welcome Reception
Dec. 4: 09:00 - 16:00 Presentations
Dec. 4: 17:00 Social Event and Conference Dinner
Dec. 5: 09:00 - 14:00 Presentations

- **E. Bohnsack**
About the Mie-Grüneisen EOS in Combination with the Johnson-Cook Material Model
(*Rheinmetall Waffe Munition GmbH, Unterlüß, Germany*)
- **Y. Demarty¹, P. Simon^{1,2}, A. Rusinek²**
Mechanical behaviour modelling under dynamic conditions: Application to structural and high strength steels
(¹*French-German Institute of Saint-Louis, Saint-Louis, France*; ²*Laboratory of Microstructure Studies and Mechanics of Materials, Lorraine University, Metz, France*)
- **S. Dieck¹, F. Pursche², L. Weller³, T. Halle¹, N. Herzig², I. Schneider³**
Application potential of Q&P heat treatment for high strength security steels
(¹*MDZWP e.V., Magdeburg, Germany*; ²*Nordmetall GmbH, Neukirchen-Adorf, Germany*; ³*Bundeswehr Research Institute for Materials, Fuels and Lubricants (WIWeB), Erding, Germany*)
- **A. E. Mayer, A. A. Ebel**
Influence of the rear surface relief on resistance to shock-wave spallation
(*Chelyabinsk State University, Chelyabinsk, Russia*)
- **N. J. Edwards^{1,2}, S. J. Cimpoeu³, D. Ruan^{1,2}, G. Lu¹**
Adiabatic Shear Bands in 2024-T351 Aluminium
(¹*Faculty of Science, Engineering and Technology, Swinburne University of Technology, Hawthorn, Australia*; ²*Defence Materials Technology Centre, Hawthorn, Australia*; ³*Defence Science and Technology Group, Fishermans Bend, Australia*)
- **J. Maffert**
New status report about latest investigations on DIFENDER products
(*AG der Dillinger Hüttenwerke, Dillingen, Germany*)
- **G. T. (Rusty) Gray III**
Compact Forced Simple-Shear (CFSS) Sample for Studying the Mechanical Response and Microstructure Evolution during Shear Localization in 7039-Al, Ti-6Al-4V, and Ta
(*Materials Science and Technology Division, Los Alamos National Laboratory, Los Alamos, United States of America*)
- **C. Günster**
Secure®-recent developments and improvements
(*thyssenkrupp Steel Europe AG, Duisburg, Germany*)
- **N. Herzig**
Recent developments at Nordmetall
(*Nordmetall GmbH, Neukirchen-Adorf, Germany*)

- **J. Luft¹, J. Emmrich², F. Pursche³, E. Kieselstein⁴, C. Ehemann², R. Kawalla¹, M. Ullmann¹, U. Prah¹, N. Herzig³, J. Kaufmann², L. Kroll²**
Manufacturing of light metal wire-mesh-plastic composites as a new class of composite materials
(¹*Technische Universität Bergakademie Freiberg, Institute of Metal Forming, Freiberg, Germany*; ²*Technische Universität Chemnitz, Institute of Lightweight Structure, Chemnitz, Germany*; ³*Nordmetall GmbH, Neukirchen-Adorf, Germany*; ⁴*Kieselstein International GmbH, Chemnitz, Germany*)
- **S. Mates**
Dynamic Compression Behavior of Rapidly Heated Carbon Steels
(*National Institute of Standards and Technology, Gaithersburg, United States of America*)
- **A. E. Mayer, P. N. Mayer**
Size distribution of pores in solid and molten metals at spall fracture and dynamics of foamed solid and molten aluminium: molecular dynamic investigations and mechanical models
(*Chelyabinsk State University, Chelyabinsk, Russia*)
- **S. V. Razorenov^{1,2}, G. V. Garkushin^{1,2}, E. G. Astafurova³, V. A. Maskvina³, O. N. Ignatova⁴, A. N. Malyshev⁴**
Effect of dislocation density on the resistance to high-rate deformation and fracture of copper M1 and austenitic stainless steel
(¹*Institute of Problems of Chemical Physics RAS, Chernogolovka, Russia*; ²*National Research Tomsk state University, Tomsk, Russia*; ³*Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia*; ⁴*The Russian Federal Nuclear Center, Research Institute of Experimental Physics, Sarov, Russia*)
- **M. Roth, M. Berg, R. Niefanger, B. Schünemann**
Analysis of different numerical methods for simulation of terminal ballistics
(*Rheinmetall Waffe Munition GmbH, Unterlüß, Germany*)
- **K. Staudhammer**
Formation of Martensite in Steels
(*Los Alamos National Laboratory (Retired), Los Alamos, United States of America*)
- **L. Olovsson¹, A. G. Hanssen¹, F. Pursche², N. Herzig²**
Impetus advanced strength and failure material modelling for terminal ballistics simulation
(¹*IMPETUS Afea, Flekkefjord Norway*; ²*Nordmetall GmbH, Neukirchen-Adorf, Germany*)
- **G. Heide**
Shockwave research in Freiberg—New possibilities and limitations
(*Technische Universität Bergakademie Freiberg, Institute of Mineralogy, Freiberg, Germany*)
- **A. Klavzar¹, B.-M. Fischer¹, S. Abdel-Malek², F. Pursche², N. Herzig²**
Improvement of the prediction of failure behavior of steels under consideration of adiabatic shear phenomenon — experiment and simulation
(¹*French-German Institute of Saint-Louis, Saint-Louis, France*; ²*Nordmetall GmbH, Neukirchen-Adorf, Germany*)

Registration - 13th Nordmetall Colloquium, December 4 - 5, 2018

(Fax: +49 (0) 371-503 490 11, Email: colloquium@nordmetall.net)

Nordmetall GmbH, Adorfer Hauptstrasse 16, D-09221 Neukirchen near Chemnitz, Germany

NORDMETALL
MATERIALS AND IMPACT ENGINEERING

**13th International
Nordmetall Colloquium
December 4 - 5, 2018**

**Invitation and
Preliminary Agenda**

surname first name academic degree

company / institution / affiliation

street, number postal code, town

phone fax

email

By this way I confirm my participation at 13th Nordmetall colloquium (Please mark relevant items)

- I will participate both days.
- I will participate only at first / second day.
- I will participate at the welcome reception on December 3, 2018.
- I will participate at conference dinner on December 4, 2018.
- I need a transfer from central station to hotel
when: _____

- I need a transfer from hotel to the Wasserschloss at the second day

- I need a hotel reservation from: _____ to: _____



**Conference Venue
Wasserschloss Klaffenbach
Wasserschlossweg 6
D-09123 Chemnitz
Germany**

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date signature