

21.–22.03.2024

MEFORM

— Current Contributions in Metal Forming —

INVITATION TO MEFORM 2024 – CURRENT CONTRIBUTIONS IN METAL FORMING

Dear Colleagues, Partner, Friends,

Join us at the MEFORM annual conference on March 21-22, 2024, at the Institute of Metal Forming (IMF), TU Bergakademie Freiberg. With a rich 95-year history, IMF has been a pioneer in materials and forming technology. Our commitment to material-specific and process engineering has yielded outstanding research in modern metallic materials and production technologies.

MEFORM has grown into an international hub stimulating high level exchange for engineers and scientists from industry, research and universities. This year, we'll explore topics such as CO₂-neutral production, resource efficiency, quality assurance, material characterization, digitalization for Metal Forming 4.0, and tailored copper technologies.

MEFORM 2024's highlight is a panel discussion on the current engineering shortage, set against a backdrop of declining interest in STEM fields among the younger generation. Representatives from industry, science, school, and politics will discuss measures at the school-university-industry interface.

Beyond stimulating presentations, MEFORM emphasizes personal connections, offering an excellent opportunity for networking. Join us for MEFORM 2024 for enlightening discussions, valuable networking, and the celebration of impactful contributions in metal forming and metallic materials technologies.

Best regards,

Ulrich Prah and Madlen Ullmann in the name of the complete team of
Institute of Metal Forming (IMF), TU Bergakademie Freiberg



TUBAF

Die Ressourcenuniversität.
Seit 1765.

Thursday | 21/03/24



11:00	12:00	Reception	
12:00	12:10	Greeting from the rector	K.-D. Barbknecht Rector, TUBAF
12:10	12:30	Welcome	U. Prah IMF, TUBAF
12:30	12:35	Introduction session 1: CO ₂ -neutral and resource-efficient production, CO ₂ -free melting and heating technology for the metal industry	Chairman: W. Bleck IEHK, RWTH Aachen University
12:35	12:55	Feralpi steel towards green steel production in Riesa	U. Reinecke ESF Elbe-Stahlwerke Feralpi GmbH
12:55	13:15	Recent innovations towards CO ₂ -free steel production and industrial exhibition	F. Klose, A. Redenius Salzgitter Mannesmann Forschung GmbH
13:15	13:45	Coffee break and industrial exhibition	
13:45	13:50	Introduction session 2: Digitalization for forming technology 4.0	Chairman: U. Prah IMF, TUBAF
13:50	14:10	Automation concept for open-die forging	R. Rechenberg, U. Prah, G. Korpala, M. Pulawski IMF, TUBAF
14:10	14:30	Design and simulation of a sizing roll pass design with comparison of the influence of two-stage TM rolling compared to single-stage TM rolling	M. Molter Saarstahl AG
14:30	14:50	In-situ observation of a precipitate transformation from Cu-containing precursors into Mg ₂ Si in 6xxx Al alloys	R. Kahlenberg*, E. Kozeschnik** *Materials Center Leoben, **IWW, TU Wien
14:50	15:10	Pitches & Posters	
15:10	16:00	Snacks and poster session and industrial exhibition	
16:00	17:30	Panel discussion: „Generation Z’s lack of engineers and STEM fatigue and measures to combat it“	Moderation: K.-D. Barbknecht Rector, TUBAF
17:30	19:00	Check-In Hotel	
19:00	open end	Institute evening at our technical centre with farewell ceremony for graduates and guided tour in the experimental lab	

Friday | 22/03/24



08:30	09:00	Reception	
09:00	09:05	Introduction session 3: Quality assurance and metallography	Chairman: J. Buhl IMET, TU Clausthal
09:05	09:25	AI-Assisted characterization of recrystallization behavior in steels	G. Korpala*/**, J. Schneider*, M. Corcoran*, U. Prah** *MiViA GmbH, **IMF, TUBAF
09:25	09:45	Quality assurance in the rolling process: A comparison of two generations of dimensional measuring devices	V. Gödecke, T. Reimers LAP Measurement Technology GmbH
09:45	10:05	Effect of spheroidization annealing on pearlite banding	S. Guk*, R. Schmidtchen*, E. Augenstein**, M. Zapara**, U. Prah* *IMF, TUBAF, **Fraunhofer IWM
10:05	10:25	Development of a new test rig for torsion loading at high temperatures and industrial exhibition	F. Pursche*, C. Rößler**, D. Schmicker**, A. Wilke***, S. Dieck***, N. Herzig* *Nordmetall GmbH, **Sampro GmbH, ***DeltaSigma Analytics GmbH
10:25	11:00	Coffee break and industrial exhibition	
11:00	11:05	Introduction session 4: Copper and copper alloys in forming technology	Chairman: L. Tikana Kupferverband
11:05	11:25	Precipitating low-alloy copper alloys with scandium and hafnium: Materials technology development and potential for selected applications	J. Dölling*, A. Zilly*, U. Prah** *DHBW Stuttgart, **IMF, TUBAF
11:25	11:45	Alloy development of a dezincification-free brass for the manufacturing of brass instruments	S. Berndorf, M. Kirschner, S. Guk, U. Prah IMF, TUBAF
11:45	12:05	Trends in copper alloys – sustainable, environment friendly and future oriented	J. Riedle Wieland Werke AG
12:05	12:25	Advancing manufacturing excellence: Simulation of the CRE process for the production of special copper conductors	H. Busch, R. Kleemann KME Mansfeld GmbH
12:25	13:30	Closing remarks and snacks	U. Prah IMF, TUBAF

PROGRAM



PITCHES & POSTERS



P1 Wear in high speed rolling of construction steels

C. Renzing, M. Weiner, M. Schmidtchen, U. Prah | IMF, TUBAF

P2 Experimental studies and simulation of TRIP-TWIP roll cladded material with an intermediate layer of nickel foil

J. Mantel*, M. Seleznev**, C. Renzing*, M. Schmidtchen*, A. Weidner**, H. Biermann**, U. Prah* | *IMF, TUBAF **IWT, TUBAF

P3 Modeling the influence of bainite transformation on the flow behavior of steel using a macro-scale finite element analysis

T. Faraji*, M. Irani*, Ch. Ostwald**, A. Hatscher**, G. Korpala*, U. Prah* | *IMF, TUBAF, **Volkswagen AG

P4 Influence of process conditions on phase transformation and bainitic microstructures in low alloyed advanced high strength complex phase steels

M. Zapf*, I. Denks**, G. Korpala*, U. Prah* | *IMF, TUBAF, **Salzgitter Mannesmann Forschung GmbH

PANEL DISCUSSION

„Generation Z's lack of engineers and STEM fatigue and measures to combat it“

K.-D. Barbknecht (Moderation) | Rector TUBAF

J. Kieselstein | Kieselstein International GmbH

Representative school - to be announced

StS Dr. A. Handschuh | SMWI

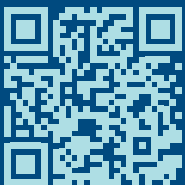
U. Reinecke | ESF Elbe-Stahlwerke Feralpi GmbH

T. Warnatsch | Mikromat GmbH

Conference Venue:

„Alte Mensa“

Petersstraße 5, 09599 Freiberg

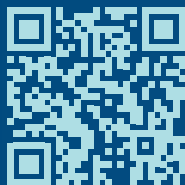


google maps

Evening Event Venue:

IMF „Haus Formgebung“

Bernhard-von-Cotta-Straße 4, 09599 Freiberg



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CONTACT PERSON

Organisation

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