

20.–21.03.2025

MEFORM

SFU

30.

JOIN US AT MEFORM 2025 AND SFU 2025!

Dear Colleagues, Partners, Friends,

the Institute of Metal Forming at the TU Bergakademie Freiberg warmly invites you to MEFORM 2025, held on March 20–21, 2025, in Freiberg, Germany. This conference brings together experts from industry and academia to explore the latest advancements in material science and production technology for metallic semi-finished products. It serves as a premier platform to discuss emerging challenges and innovative solutions in metal forming, covering diverse areas such as forging, rolling (flat and caliber), and wire drawing.

Key Topics

- Data-based process modeling and optimization
- Material simulation for technology development
- Sustainable production and CO₂ reduction
- Circular economy and resource management

This year, MEFORM 2025 proudly integrates the Sächsische Fachtagung Umformtechnik (SFU), featuring hands-on workshops under the theme "Artificial Intelligence in Forming Technologies." These interactive sessions are perfect for those eager to explore AI's transformative potential in forming technologies.

Don't miss the opportunity to engage with leading experts, network with peers, and celebrate the exciting advancements shaping the future of metal forming and metallic materials technologies.

We look forward to welcome you in Freiberg for this inspiring event!

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.

PITCHES & POSTERS



P1 Nanobainitic Steels: From research to industrial application	R. Rechenberg, M. Zapf, G. Korpala, U. Prah IMF, TUBAF
P2 No More Secrets! Open-Source software developments in basic research @ IMF	R. Pfeiffer, M. Schmidtchen, C. Renzing, M. Weiner, M. Stirl, A. Guk, J. Mantel, U. Prah IMF, TUBAF
P3 CONFORM™ process of magnesium alloys	C. Kaden, M. Ullmann, U. Prah IMF, TUBAF
P4 Classification of surface defects by AI	T. Reimers LAP GmbH Laser Application
P5 Optimizing the CONFORM™ process: Minimizing oxide inclusions in copper extrusion	R. Kleemann*, H. Busch*, O. Schwedler*, U. Prah** *KME Mannsfeld GmbH, **IMF, TUBAF
P6 Using AI for parametrizing grain size evolution models	H.-W. Raedt prosimalys GmbH
P7 Modified nitriding / nitrocarburizing processes for optimum thermochemical treatment of cold extruded parts	D. Ambacher Härterei TechnoTherm GmbH & Co.KG

AWARD CEREMONY

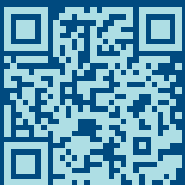
Dr. Rolf Umbach Award Ceremony

The award, initiated by the Dr. Rolf Umbach Foundation and the Association "Verein für Umformtechnik Sachsen e. V.", honors young scientists for innovative achievements in the field of forming technology. All applicants will showcase their work on posters, which can be viewed and discussed during the breaks.

Conference Venue:

„Alte Mensa“

Petersstraße 5, 09599 Freiberg

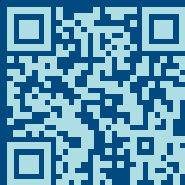


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Evening Event Venue:

IMF „Haus Formgebung“

Bernhard-von-Cotta-Straße 4, 09599 Freiberg



google maps

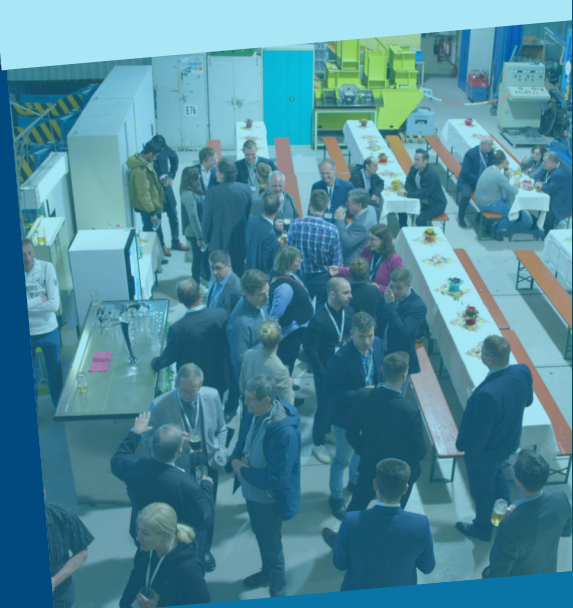
Contact

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Registration



www.acatrain.net/meform



Thursday | 20/03/25



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: Material simulation for technology development	Chairman: N. B. Khalifa IPTS, Leuphana Universität Lüneburg
12:35	12:55	Computer simulation for materials research and development at TU Wien	E. Kozeschnik IWW, TU Wien
12:55	13:15	Simulation based development of bainitic steels and relevant influencing parameters for technology design	M. Zapf, G. Korpala, U. Prah IMF, TUBAF
13:15	13:35	Application of damage models on long product rolling simulations in QForm UK	C.-E. Muller Saarstahl AG

13:35 14:10 Coffee break and industrial exhibition

14:10	14:15	Introduction session 2: Circular economy and resource management	Chairman: A. Brosius IF, TU Dresden
14:15	14:35	Sustainability driven innovations in material and process design	N. B. Khalifa, L. Hendriok, P. Zeise, B. Klusmann, H. Dieringa IPTS, Leuphana Universität Lüneburg
14:35	14:55	Effect of Cu content in high-strength steels	S. Kwieciën, S. Guk, F. Hoffmann, F. Qayyum, U. Prah IMF, TUBAF

14:55 15:30 Pitches & Posters

15:30 16:00 Snacks and poster session and industrial exhibition

16:00	16:05	Introduction Session 3: Sustainable production and CO ₂ reduction	Chairman: M. Schmidtchen IMF, TUBAF
16:05	16:25	CO ₂ -free thermal process technology as a contribution to the decarbonization of the industry	G. Wolf, A. Kessler, L. Mastaler GI, TUBAF
16:25	16:45	Development of a hybrid heating technology in roll forming	A. Guk, M. Schmidtchen, C. Renzing, U. Prah IMF, TUBAF

16:45 17:15 Dr. Rolf Umbach Award Ceremony for Young Achievements in Forming Technology U. Prah | IMF, TUBAF

19:00 open end Institute evening at our technical centre with farewell ceremony for graduates and guided tour

PROGRAM



Friday | 21/03/25



08:30 09:00 Reception

09:00 11:00 Workshops: AI in forming technology

W1: AI-Powered automation for daily office tasks M. Stirl | IMF, TUBAF

W2: Workflow and tools for AI-driven comprehensive, fast and effective literature review F. Qayyum | IMF, TUBAF

W3: Talking with my archive – Chatbot with own reports G. Korpala | IMF, TUBAF

W4: AI-Assisted programming in Python for applications in materials mechanics and physics B. Eidel | IMFD, TUBAF

11:00 11:30 Coffee break and industrial exhibition

11:30 11:35 Introduction session 4: Data-based process modelling and optimisation Chairman: E. Kozeschnik | IWW, TU Wien

11:35 11:55 AI for forming technology A. Brosius | IF, TU Dresden

11:55 12:15 Leveraging data for process modeling and analysis in hot plate rolling K. Tokmakov | SMS Group GmbH

12:15 12:35 Digital twin and machine learning for prediction of product properties in forming process chains T. Clausmeyer | IWP, TU Chemnitz

12:35 12:55 Panoramic Images in focus: AI-Assisted analysis of grain size distribution in the uniaxial compression test G. Korpala | MiViA GmbH

12:55 13:30 Closing remarks and snacks U. Prah | IMF, TUBAF

