

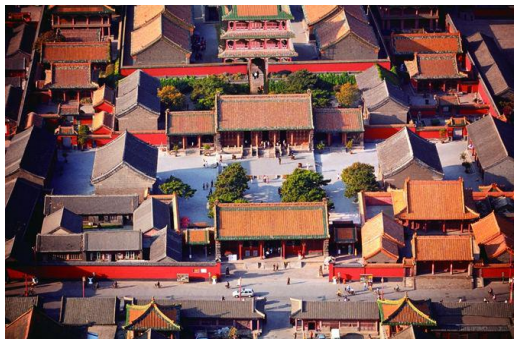


TMP
2020

The 6th International Conference
on ThermoMechanical Processing



August 24-26, 2020
Shenyang, China



The 6th International Conference on ThermoMechanical Processing

August 24-26, 2020 Shenyang, China

First Announcement / Call for Papers

Organized by

The Chinese Society for Metals (CSM)
Northeastern University (NEU)

Co-organized by

The State Laboratory of Rolling and Automation (RAL)

Co-sponsored by

Associação Brasileira de Metalurgia e Materiais (ABM), Brazil
Associazione Italiana di Metallurgia (AIM), Italy
Association for Iron and Steel Technology (AIST), USA
Czech Metallurgical Society, Czech Republic
Steel Institute VDEh, Germany
The Austrian Society for Metallurgy and Materials (ASMET), Austria
The Indian Institute of Metals (IIM), India
The Iron and Steel Institute of Japan (ISIJ), Japan
The Korean Institute of Metals and Materials (KIM), Korea
The Nonferrous Metals Society of China (Nfsoc), China

Conference Website: www.tmp2020.com



Invitation to TMP2020

ThermoMechanical Processing (TMP) is an established and vital part of the production method for increasing and tailoring the mechanical properties not only for steels, but also expanding to various non-ferrous alloys. The TMP allows improving the microstructural features in order to realize the metal products fitting the requirement imposed by the modern mechanical and structural engineering.

With a scope that ranges from the latest process and product developments to associating physical metallurgy in the thermomechanical processing of steels and non-ferrous alloys, TMP 2020 Conference aims at examining the key aspects involved in TMP: phase transformations, complex microstructures evolution, applications in CSP/ESP, in-line heat treatments, measurement techniques and the technological forming operations (rolling, forging, extrusion etc.).

We invite you to join us in Shenyang and look forward to hosting a successful and inspiring conference!



Prof. Guodong Wang

Conference Chairman of TMP2020

Northeastern University

History of TMP Conferences

The International Conference on ThermoMechanical Processing (TMP), held every 4 years, is organized in a way to maximize the interaction and discussion between researchers in the field. The 6th TMP Conference will be held in China for the first time, the previous conferences being held in:

1st TMP 2000: London, United Kingdom

2nd TMP 2004: Liege, Belgium

3rd TMP 2008: Padua, Italy

4th TMP 2012: Sheffield, United Kingdom

5th TMP 2016: Milan, Italy

Topics

The Conference will cover topics concerning the following issues:

1. Technology and Product Development in ThermoMechanical Processing

➤ Steel:

- Hot strips and hot plates refer to the control of rolling and cooling
- Compact Strip Production (CSP)/Endless Strip Production (ESP)
- Continuous strip casting and related short process technology
- Hot stamping and forging
- Non-Ferrous alloys (Al, Cu, Mg, Ti and other alloys):
- Rolling, forging, extrusion and drawing

2. Physical Metallurgy of ThermoMechanical Processing

- Computation and modelling
- Microstructure and property
- Recrystallization, precipitation and phase transformation
- Solidification mechanism of continuous casting
- On-line heat treatment
- Oxidation of steel
- Hot rolling based on the control of oxidation behavior

3. Intelligent Manufacturing

- Industrial big data analytics based on ThermoMechanical Processing
- Establishment of industrial internet platform and cyber-physical system
- Development of digital twin system on key processes
- In process quality control and intelligent optimization decision of ThermoMechanical Processing

Honorary Chairman

Yong Gan (Chinese Academy of Engineering / The Chinese Society for Metals), China

Conference Chairman

Guodong Wang (Chinese Academy of Engineering / Northeastern University), China

Fusheng Pan (Chinese Academy of Engineering / Chongqing University), China

H. K. D. H. Bhadeshia (University of Cambridge), UK

Conference Advisory Board

Hongnian Cai (Chinese Academy of Engineering / China South Industries Group Co., Ltd.), China

Wenjiang Ding (Chinese Academy of Engineering / Shanghai Jiao Tong University), China

Jilin He (Chinese Academy of Engineering / Northwest Rare Metal Materials Research Institute Ningxia Co., Ltd.), China

Boyun Huang (Chinese Academy of Engineering / Central South University), China

Qingxue Huang (Chinese Academy of Engineering / Taiyuan University of Technology), China

Helin Li (Chinese Academy of Engineering / CNPC Tubular Goods Research Institute), China

Zhengdong Liu (Chinese Academy of Engineering / Central Iron & Steel Research Institute), China

Mingtu Ma (China Automotive Engineering Research Institute Co., Ltd.), China

Xinping Mao (Chinese Academy of Engineering / University of Science & Technology Beijing), China

Zuoren Nie (Chinese Academy of Engineering / Beijing University of Technology), China

Yide Wang (Chinese Academy of Engineering / Taiyuan Iron & Steel (Group) Co., Ltd.), China

Yuqing Weng (Chinese Academy of Engineering / Central Iron & Steel Research Institute), China

Jianxin Xie (Chinese Academy of Engineering / University of Science & Technology Beijing), China

Huibin Xu (Chinese Academy of Engineering / Beihang University), China

Qunji Xue (Chinese Academy of Engineering / Ningbo Institute of Industrial Technology, Chinese Academy of Sciences), China

Guomao Yin (Chinese Academy of Engineering / Ansteel Group Corporation Limited), China

Ruiyu Yin (Chinese Academy of Engineering / Central Iron & Steel Research Institute), China

Qilong Yong (Central Iron & Steel Research Institute), China

Xinming Zhang (Central South University), China

Zhenye Zhao (Chinese Academy of Engineering / AECC Beijing Institute of Aeronautical Materials), China

Lian Zhou (Chinese Academy of Engineering / Northwest Institute For Non-Ferrous Metal Research), China

Tieyong Zuo (Chinese Academy of Engineering / Beijing University of Technology), China

International Scientific Committee

Chairman:

Zhaodong Wang (Northeastern University), China

Baiqing Xiong (General Research Institute for Nonferrous Metals), China

Peter D. Hodgson (Deakin University), Australia

Wolfgang Bleck (RWTH Aachen University), Germany

Members:

G. Angella (CNR IENI), Italy

Marcello Baricco (Università di Torino), Italy

F. Bonollo (Università degli Studi di Padova), Italy
Bruno Buchmayr (Montanuniversität Leoben), Austria
Francisca G. Caballero (National Center for Metallurgical Research (CENIM-CSIC)), Spain
Han Dong (Shanghai University), China
Mingxin Huang (The University of Hong Kong), Hong Kong, China
Zhouhua Jiang (Northeastern University), China
Zhengyi Jiang (University of Wollongong), Australia
Yonglin Kang (University of Science and Technology Beijing), China
Rudolf Kawalla (Technische Universität Bergakademie Freiberg), Germany
Hyeong-Jin Kim (Hyundai Steel), Korea
Zigang Li (China Baowu Steel Group), China
Qingyou Liu (Central Iron & Steel Research Institute), China
Zhenyu Liu (Northeastern University), China
Yongchang Liu (Tianjin University), China
Carlo Mapelli (Politecnico di Milano), Italy
Devesh Misra (University of Texas at El Paso), USA
Kenichiro Mori (Toyohashi University of Technology), Japan
Eric J. Palmiere (The University of Sheffield), United Kingdom
A.Schneider (Dillinger Hütte), Germany
Christof Sommitisch (Graz University of Technology), Austria
Mick Steeper (IOM3), United Kingdom
Baode Sun (Shanghai Jiao Tong University), China
Huiyuan Wang (Jilin University), China
Tongmin Wang (Dalian University of Technology), China
Zhigang Wang (Gifu University), Japan
Rui Yang (Institute of Metal Research, Chinese Academy of Sciences), China
Zhigang Yang (Tsinghua University), China
Hongliang Yi (Northeastern University), China
Dianhua Zhang (Northeastern University), China
Pijun Zhang (China Baowu Steel Group), China
Mingge Zhao (Shougang Group), China

Shihong Zhang (Institute of Metal Research, Chinese Academy of Sciences), China

Jizhao Zheng (China Steel Corporation), Taiwan, China

Sybrand van der Zwaag (Delft University of Technology), The Netherlands

Jianfeng Wang (GM), China

Local Organizing Committee

Chairman:

Pei Zhao (The Chinese Society for Metals)

Members:

Guo Yuan (Northeastern University)

Ding Cheng (Masteel Group)

Xianhua Chen (Chongqing University)

Juefei Chu (Nanjing Nangang Iron and Steel United Co., Ltd.)

Hongshuang Di (Northeastern University)

Aimin Guo (CITIC Metal)

Shangqing Jiang (China Iron and Steel Association)

Jianmin Li (Taiyuan Iron & Steel (Group) Co., Ltd.)

Xun Li (Southwest Aluminum (Group) Co., Ltd.)

Wensheng Liu (Central South University)

Xiaochun Sha (Ansteel Group Corporation Limited)

Weihua Sun (Shandong Iron & Steel Co., Ltd.)

Hong Wang (Minmetals Yingkou Medium Plate Co.,Ltd.)

Quanli Wang (Shougang Group)

Xindong Wang (HBIS Group)

Wei Xu (Northeastern University)

Caifu Yang (Central Iron & Steel Research Institute), China

Fucheng Zhang (Yanshan University)

Guiyu Zhang (Benxi Steel Group)

Zhonghua Zhang (China Baowu Steel Group)

Yongqing Zhao (Northwest Institute For Non-Ferrous Metal Research)

Secretary General

Xinjiang Wang (The Chinese Society for Metals), China

Deputy Secretary General

Qing Song (The Chinese Society for Metals), China

Wei Xu (Northeastern University), China

Plenary Speakers

 (The following speakers are updated on Feb. 3, 2020)

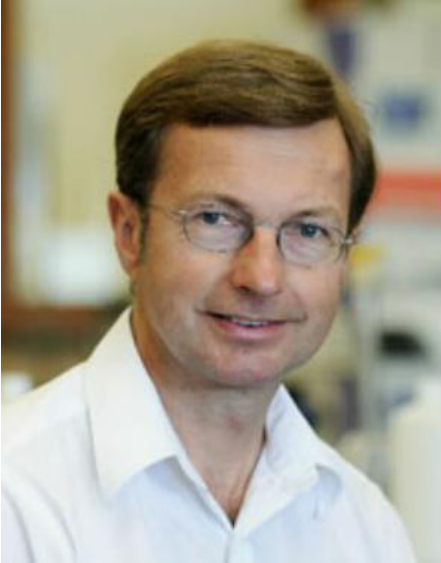
- Guodong Wang, Northeastern University, China



- Harry Bhadeshia, Cambridge University, United Kingdom



- Matthias Militzer, University of British Columbia, Canada



Matthias Militzer is the ArcelorMittal Dofasco Chair in Advanced Steel Processing and the Director of the Centre for Metallurgical Process Engineering at the University of British Columbia in Vancouver. He received a Diploma in Physics from the University of Technology in Dresden, Germany in 1983 and a Ph.D. in Metal Physics from the Academy of Sciences in East Germany in 1987. He moved to Canada in 1990 where he was first a Postdoctoral Fellow at McGill University before joining the University of British Columbia in 1993. He has published more than 200 papers in refereed journals and conference proceedings. His primary field of research is modelling the microstructure evolution during thermo-mechanical processing of steels and other metals. Currently, his major research activities include multi-scale modelling of phase transformations in steels, accelerated cooling of steels and in-situ measurements of microstructures using laser ultrasonics for metallurgy. He is a Fellow of the Canadian Institute for Mining, Metallurgy and Petroleum (CIM) and received the ASM Henry Marion Howe Medal 2010 and the Canadian Metal Physics Award in 2014.

- Peter Hodgson, Deakin University, Australia



- Andrey Alexandrov, Interstate Association Titan, CIS (Commonwealth of Independent States), Russia



Andrey Alexandrov has been the General Director of the Interstate Association "Titan" since 2001. After graduating from the Moscow Institute of Steel and Alloys worked as a Researcher at the All-Russian Institute of light alloys (VILS). Later he worked in trading companies specializing in the production and international trade of titanium products. In 1997, he returned to VILS as Head of the Titanium Department. The main scientific works are related to melting of titanium and its alloys, production of alloys with shape memory, development of new equipment, engineering, marketing. Scientific degree is Ph.D Engineering. Have a big international trade experience, management and organizational work in titanium industry. While heading Interstate Association Titan, number of members has increased from 19 to 61. Association has developed into authoritative industry organization with wide business and information contacts in CIS countries and more than 15 countries abroad. Association is full CIS representative in worldwide titanium organizations. Since 2002 he is the editor-in-Chief of the scientific and technical journal «Titanium».

- Sedon Choo, POSCO, Korea



Presentation Title: Property Prediction Model and Its Application to the Manufacturing of Steel Plates

Sedon Choo has been the Executive Vice President of POSCO since 2016 and is currently the head of Steel Solution Research Lab. After graduating from Seoul National University(Metallurgy, BS) and Korea Advanced Institute of Science and Technology(Mat Sci. & Eng., MS & PhD) began working as a researcher at POSLAB(POSCO Technical Research Lab) in 1993. In 2003, he led the Thick-plate Design team in Marketing Division and in 2009 became Group Leader of Technical Planning Group.

In 2011, he returned to POSLAB in Gwangyang as a Group Leader of Thin-plate Research Group and became the Head of Gwangyang Research Lab(Senior Vice President) in 2015. Later, he also served as the Head of Pohang Research Lab and became the Head(Executive Vice President) of Energy and Shipbuilding Steel Marketing Office in 2016. After working as the Head of Steel Solution Marketing Office in 2018 he is currently the Head of Steel Solution Research Lab in Incheon.

He was awarded the official commendation from the Minister of Commerce, Industry and Energy in 2007. He was also awarded the Steel Technical Creative Award by POSCO in 2012 and Steel Technical Innovation Award in 2013. In 2014, he won the Technical Award from the Korean Institute of Metals and Materials.

Keynote Speakers (The following speakers are updated on Feb. 3, 2020)

Ronaldo Barbosa, Universidade Federal de Minas Gerais, Brazil

Weilin Gao, Tongling Gao-Tong Technology Co. ,Ltd., Japan

Carlos Garcia-Mateo, National Centre for Metallurgical Research (CENIM), Spain

Hélio Goldenstein, Cidade Universitária, Brazil

Zhanli Guo, Sente Software Ltd., UK

Heung-Nam Han, Seoul National University, Korea

Zhengyi Jiang, University of Wollongong, Australia

Chang-Hoon Lee, Korea Institute of Materials Science (KIMS), Korea

David San Martin Fernandez, National Centre for Metallurgical Research (CENIM) / Spanish National Research Council (CSIC), Spain

Pedro Rivera Diaz Del Castillo, Lancaster University, UK

Tony Rollett, Carnegie Mellon University, USA

Dong-Woo Suh, Pohang University of Science and Technology (POSTECH), Korea

Sybrand van der Zwaag, Delft University, The Netherlands

Extended Abstract

The extended abstracts are requested to submit through the conference website before **April 15, 2020**. All the accepted extended abstracts will be published in the conference proceedings which will be released to the public by Metallurgical Industry Press Co.,Ltd. and will be available at the conference beginning on August 23, 2020.

Please kindly download the authors guide, sample format and copyright transfer form from the conference website (www.tmp2020.com).

Manuscript

Participants are also welcome to submit the full manuscript, even though the full manuscript is not necessarily required for the attendance of this conference.

If you would like to submit the manuscript for TMP2020, please kindly send your full paper via the conference email: tmp2020@csm.org.cn before **May 1, 2020**. The full manuscript submitted will be made available in PDF format for participants. Please kindly download the sample format of manuscript for TMP2020 from the conference website (www.tmp2020.com).

Official Language

Official language for the conference is English.

Exhibition, Workshop & Sponsorship Opportunities

As the integral elements of the event, TMP2020 will feature the exhibition and workshop that will enable excellent exposure for company products, technologies, innovative solutions or services. The exhibition and workshop will be organized near the meeting room during TMP2020. The conference will offer an excellent opportunity for companies to do business and maintain key contacts with customers and suppliers. It is also a unique platform for them to promote new products, outline services and highlight key achievements.

Companies will be able to reinforce their participation and enhance their corporate identification by taking advantage of the benefits offered to them as sponsors of the conference.

If you would like to join the exhibition, workshop or sponsorship, please contact with the Conference

Secretariat .

Conference Secretariat

Dr. Tao Jia, Dr. Chenchong Wang, Northeastern University

Mr. Xin Zhao, The Chinese Society for Metals

76 Xueyuan Nanlu, Beijing 100081, China

Email: tmp2020@csm.org.cn

Tel: +86-10-65211205 Fax: +86-10-65124122

Website: www.tmp2020.com