

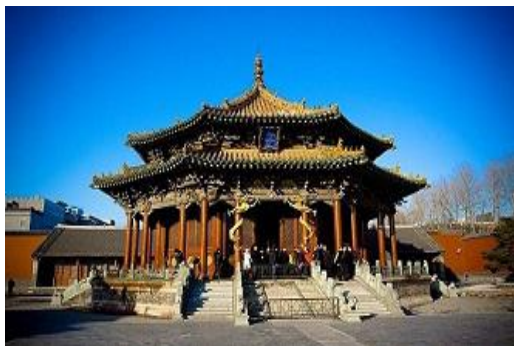
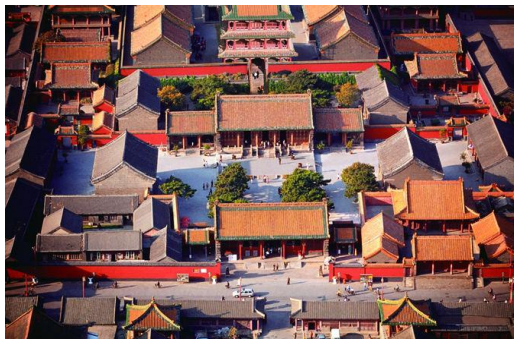


TMP
2020

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

Fushang 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 Science and 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 December 14, 2019)

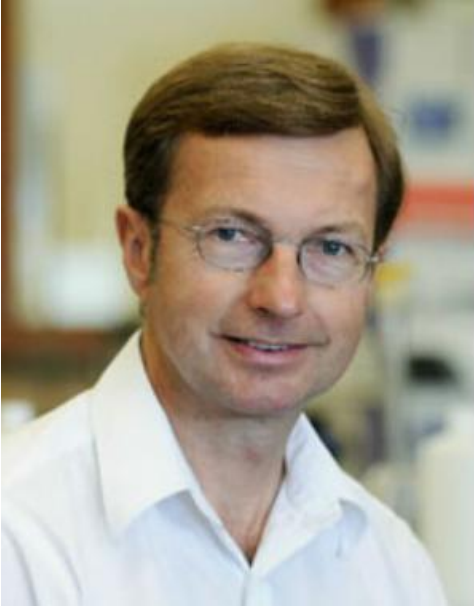
- Guodong Wang, Northeastern University, China



- 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».

Keynote Speakers (The following speakers are updated on December 14, 2019)

Ronaldo Barbosa, Universidade Federal de Minas Gerais, Brazil

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

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

Hélio Goldenstein, Cidade Universitária, Brazil

Zhanli Guo, Sente Software Ltd., UK

Zhengyi Jiang, University of Wollongong, Australia

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

Pedro Rivera, Lancaster University, UK

Tony Rollett, Carnegie Mellon University, USA

Sybrand van der Zwaag, Delft University, The Netherlands

Abstract Submission

All contributions on the theme of the conference as described previously are welcome. The official language of the conference is English. Prospective authors are invited to submit an abstract of 300 words (in English) by **31 January 2020** through the conference website: www.tmp2020.com. The abstract should provide sufficient information for a fair assessment.

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