



# PTM2020

## The 8<sup>th</sup> International Conference on Solid→Solid Phase Transformations in Inorganic Materials

June 29<sup>th</sup> - July 3<sup>rd</sup>, 2020 Xi'an, China

### Call for Papers (2<sup>nd</sup> Announcement)

Organized by



The Chinese Society for Metals (CSM)

Co-sponsored by

The Japan Institute of Metals and Materials (JIM)

Materials Australia (MA)

The Chinese Materials Research Society (C-MRS)

The Korean Institute of Metals and Materials (KIM)

The Minerals, Metals & Materials Society (TMS)



Conference Website: [www.ptm2020.com](http://www.ptm2020.com)



# Contents / Important Dates

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## Contents

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Invitation to PTM2020 / Conference Outline.....	2
History and Scope.....	3
Organizers / Committees.....	4
Plenary Speakers.....	7
Invited Speakers.....	14
Schedule / Social Events.....	17
Call for Papers.....	18
Aaronson Award / Hillert-Cahn Award.....	19
Exhibition, Workshop & Sponsorship Opportunities.....	21
Registration / Visa Application.....	22
Conference Venue / Hotel Reservation.....	25
General Information.....	27
Access.....	28

## Important Dates

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- Extended Abstract Submission Deadline  
Saturday, February 15, 2020
- Aaronson Award Application Deadline  
Saturday, February 15, 2020
- Author's Registration Deadline  
Sunday, March 15, 2020
- Early Registration Deadline (Regular Participant)  
Wednesday, April 1, 2020
- Deadline for Conference Registration and Hotel Reservation Cancellations  
Monday, June 15, 2020
- Registration  
Sunday, June 28, 2020
- Conference  
June 29-July 3, 2020

# Invitation to PTM2020

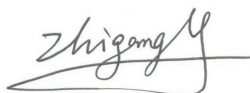
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**Dear Colleagues,**

It is our pleasure to announce that the 8<sup>th</sup> International Conference on Solid→Solid Phase Transformations in Inorganic Materials (PTM2020) will be held in Xi'an, China from June 29 to July 3, 2020. The goal of PTM2020 is to bring together international experts on solid→solid state phase transformation from academia and industry to meet and discuss their research each other in a friendly atmosphere.

Together with Athens, Cairo and Rome, Xi'an is among the four major ancient civilization capitals of the world. It is on the natural westward land route out of China into Central Asia, the starting point and terminus of the Silk Road, which brought the city material wealth as well as religious and cultural melting for over a thousand years. Xi'an boasts a history of more than 3,000 years, of which more than 1100 years were as the national capital for 13 dynasties. It has many places of historic interest, including: the Terracotta Warriors, the Banpo Museum, the Huaqing Spring, Shaanxi Museum of History, etc. In addition to technical program, a varied social program is planned for all participants and their companions.

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



Prof. Zhigang Yang

Tsinghua University

Chairman of Organizing Committee of PTM2020

## **Conference Outline**

**Date:** June 29-July 3, 2020

**Venue:** Xi'an Qujiang International Conference Center

**Official Language:** English



## History and Scope

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The International Conference on Solid→Solid Phase Transformations in Inorganic Materials (PTM), held every 5 years, is organized in a way to maximize the interaction and discussion between researchers in the field. The 8<sup>th</sup> PTM conference will be held in China for the first time, the previous conferences being held in:

1981 - Pittsburgh, USA

1987 - Cambridge, United Kingdom

1994 - Nemaquin Woodlands, USA

1999 - Kyoto, Japan

2005 - Phoenix, USA

2010 - Avignon, France

2015- Whistler, Canada

The following broad topics will be covered by PTM2020, include but not limited to:

- Diffusional transformations including nucleation, growth, coarsening, precipitation, spinodal decomposition, interphase migration, austenite-ferrite transformation, order-disorder transformations, elasticity
- Displacive transformations including martensitic transformations and shape memory alloys
- Advances in experimental techniques including scattering and diffraction techniques, atom probe, high-resolution electron microscopy and laser ultrasonics
- Advances in modelling and simulation including atomistic simulations, phase field and other meso-scale simulations, multi-scale modelling, fundamentals of structures, thermodynamics and diffusion
- Industrial applications including phase transformations in advanced high strength steels, thermo-mechanical processing, welding and nuclear materials
- Emerging areas including phase transformations during additive manufacturing, phase transitions in interfaces, high entropy alloys; amorphous alloys/quasicrystals, nanomaterials and materials for sustainable energy

## Organizers / Committees

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### **Organized by**

The Chinese Society for Metals (CSM)

### **Co-sponsored by**

The Japan Institute of Metals and Materials (JIM)

Materials Australia (MA)

The Chinese Materials Research Society (C-MRS)

The Korean Institute of Metals and Materials (KIM)

The Minerals, Metals & Materials Society (TMS)

### **Organizing Committee**

**Zhigang Yang (Chair)**, Professor of Tsinghua University

**Hao Chen**, Associate Professor of Tsinghua University

**Chengjia Shang**, Professor of University of Science & Technology Beijing

**Qing Song (Secretary General)**, Professor of The Chinese Society for Metals

**Xinjiang Wang**, Professor of The Chinese Society for Metals

### **Advisor to The Organizing Committee**

**Yuqing Weng**, Academician, The Chinese Society for Metals

### **International Scientific Committee**

**Markus Apel**                      RWTH Aachen University                      Germany

**Benoit Appolaire**                University of Lorraine                              France

**Annika Borgenstam**                The Royal Institute of Technology                Sweden

**Francisca G. Caballero**                Spanish National Center for Metallurgical Research (CENIM-CSIC)                Spain

**Long-Qing Chen**                      Penn State University                              USA

**Amy J. Clarke**                          Colorado School of Mines                              USA

<b>Alexis Deschamps</b>	Grenoble Institute of Technology	France
<b>Masato Enomoto</b>	Ibaraki University	Japan
<b>Alphonse Finel</b>	University of Paris-Saclay	France
<b>Tadashi Furuhashi</b>	Tohoku University	Japan
<b>Ernst Gamsjäger</b>	Montanuniversität Leoben	Austria
<b>Baptiste Gault</b>	Max-Planck-Institut für Eisenforschung	Germany
<b>Hélio Goldenstein</b>	University of São Paulo	Brazil
<b>James M. Howe</b>	University of Virginia	USA
<b>Mingxin Huang</b>	The University of Hong Kong	Hong Kong, China
<b>Christopher Hutchinson</b>	Monash University	Australia
<b>Pascal Jacques</b>	Université catholique de Louvain	Belgium
<b>Xuejun Jin</b>	Shanghai Jiao Tong University	China
<b>Ernst Kozeschnik</b>	Technische Universität Wien	Austria
<b>Yanjun Li</b>	Norwegian University of Science and Technology	Norway
<b>Feng Liu</b>	Northwestern Polytechnical University	China
<b>Yongchang Liu</b>	Tianjin University	China
<b>Lei Lu</b>	Shenyang National Laboratory for Materials Science	China
<b>Haiwen Luo</b>	University of Science and Technology Beijing	China
<b>Emmanuelle Marquis</b>	University of Michigan	USA
<b>Knut Marthinsen</b>	Norwegian University of Science and Technology	Norway
<b>Matthias Militzer</b>	The University of British Columbia	Canada

<b>Goro Miyamoto</b>	Tohoku University	Japan
<b>Tetsuo Mohri</b>	Tohoku University	Japan
<b>Jianfeng Nie</b>	Monash University	Australia
<b>Michel Perez</b>	Institut National des Sciences Appliquées de Lyon	France
<b>Eugen Rabkin</b>	Technion-Israel Institute of Technology	Israel
<b>Michel Rappaz</b>	Ecole Polytechnique Fédérale de LaUSAnne	Switzerland
<b>Jose M. Rodriguez-Ibabe</b>	University of Navarra	Spain
<b>Chadwick W. Sinclair</b>	The University of British Columbia	Canada
<b>Ingo Steinbach</b>	Ruhr-University Bochum	Germany
<b>Peter W. Voorhees</b>	Northwestern University	USA
<b>Yunzhi Wang</b>	The Ohio State University	USA
<b>Wei XU</b>	Northeastern University	China
<b>Jer-Ren Yang</b>	National Taiwan University	Taiwan, China
<b>Wenzheng Zhang</b>	Tsinghua University	China
<b>Hatem S. Zurob</b>	McMaster University	Canada

# Plenary Speakers

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**Tadashi Furuhashi** (Hillert-Cahn Lecturer)

Professor

Tohoku University, Japan

**Presentation Title: Interface in solid-solid transformation - interplay of kinetics and crystallography**

Tadashi Furuhashi is a Professor and a Deputy Director of the Institute for Materials Research (IMR), Tohoku University, Japan. He obtained Bachelor and Master degrees at Kyoto University, Japan and a PhD at Carnegie Mellon University, U.S.A. Immediately after graduation, he joined the faculty of engineering, Kyoto University in 1989 and made research and education as an assistant and associate professor. Then he became a professor at Tohoku University in 2005.



His research activity covers a broad area in physical metallurgy of steels and non-ferrous alloys, such as phase transformations and precipitation, deformation and recrystallization, microstructure control by thermo-mechanical and thermo-chemical processing. Particularly, crystallography and interfacial phenomena in solid-solid phase transformation and their relation to nucleation and growth kinetics are main subjects of interest throughout his entire career.

He also actively contributes to various academic societies in metallurgy field, the Japan Institute of Metals and Materials (JIM), the Iron and Steel Institute of Japan (ISIJ), the Japan Society for Heat Treatment (JSHT), the Minerals, Metals & Materials Society (TMS) and ASM International (ASMI). He was a past vice president of JIM and currently a vice president of ISIJ. He is also an editor of Acta and Scripta Materialia.

## Long-Qing Chen

Professor

The Pennsylvania State University, USA

### **Presentation Title: To be determined**



Chen is Hamer Professor of Materials Science and Engineering, Professor of Engineering Science and Mechanics, and Professor of Mathematics at Penn State and the Editor-in-Chief for *npj Computational Materials* by Springer-Nature. He received his Ph.D. from MIT in Materials Science and Engineering in 1990 and joined the faculty at Penn State in 1992. He has published over 600 papers (with > 40,000 total citations and H-index of 95 according to the Google Scholars) in the area of computational phase transformations and microstructure evolution and multiscale modeling of structural metallic alloys, functional oxide thin films, and energy materials and is a Clarivate Analytics Highly Cited Researcher. He received the 2014 MRS Materials Theory Award, a Guggenheim Fellowship in 2005, a Humboldt Research Prize in 2017, 2011 The Minerals, Metals and Materials Society (TMS) EMPMD Distinguished Scientist Award, 2008 ASM International Silver Medal, and the 2015 Lee Hsun Lecture Award by the Shenyang Institute for Metals of the Chinese Academy of Sciences. He is a Fellow and Life Member of TMS and a Fellow of the Materials Research Society (MRS), American Physical Society (APS), American Association for the Advancement of Sciences (AAAS), American Ceramic Society (ACerS), and ASM International (ASM).

## Alexis Deschamps

Professor  
Univ. Grenoble Alpes, France

### **Presentation Title: Kinetics of phase transformations: what do we learn from in-situ studies?**



Alexis Deschamps did his undergraduate studies at Ecole Centrale de Paris in France, followed by a Master degree at McMaster University in Canada and a PhD at Grenoble Institute of Technology, France. After a post-doctoral stay at UBC, Vancouver, Canada, he has held an academic position at the Grenoble Institute of Technology since 1998, with research stays at Monash University, UBC and NTNU. His main research focus is on the experimental determination of the kinetics of phase transformations, mainly in aluminum alloys and in steels, using the combination of large scale facilities, electron microscopy and atom probe tomography. His broader research area deals with the link between the obtained microstructures and various properties, including strength, strain hardening, fracture and corrosion.

## **Jeffrey Hoyt**

Professor  
McMaster University, Canada

### **Presentation Title: Phase transformations and molecular dynamics simulations**



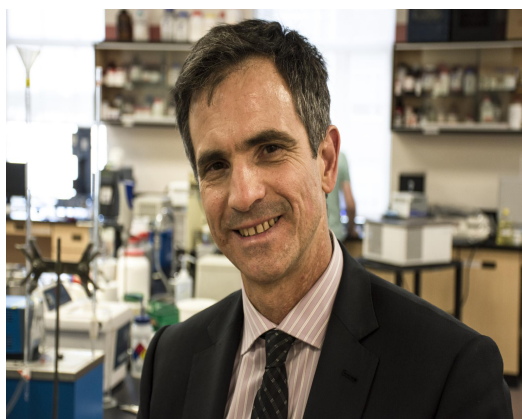
In 1986, Jeff Hoyt received his PhD in Physical Metallurgy from the University of California, Berkeley. From 1988-1996, he was a faculty member in the Department of Mechanical and Materials Engineering at Washington State University. For the next ten years Dr. Hoyt was a member of the technical staff at the Sandia National Laboratories at both the Livermore, CA and Albuquerque, NM sites. In 2007 Dr. Hoyt returned to academia and joined the faculty at McMaster University in the Department of Materials science and Engineering. After serving as Department chair for five years, Prof. Hoyt semi-retired in 2016. Prof. Hoyt's research interest is all aspects of phase transformations, as well as computational techniques such as molecular dynamics and Monte Carlo methods.

## **Alejandro G. Marangoni**

Professor

University of Guelph, Canada

**Presentation Title: Engineering the nanoscale and functionality of edible fat crystal networks: from chocolate to butter**

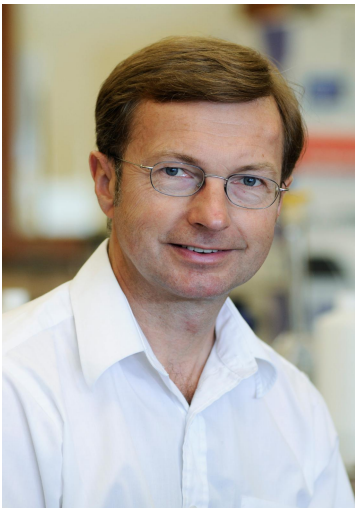


Dr. Alejandro G. Marangoni is a Professor and Tier I Canada Research Chair in Food, Health and Aging at the University of Guelph, Canada. His work concentrates on the physical properties of lipidic materials in foods, cosmetics and biolubricants. With an H-index of 70 and 18,000 citations of his work, he has published over 400 refereed research articles, 82 book chapters, 18 books, and over 40 patents. He is the recipient of many awards including the 2013 AOCS Stephen Chang award, the 2014 IFT Chang Award in Lipid Science, the 2014 AOCS Supelco/Nicholas Pelick Award, the 2015 ISF Kaufmann Medal, the 2017 AOCS Alton E. Bailey Medal, and the 2019 European Lipid Technology Award from Euro Fed Lipids. Marangoni is a fellow of the American Oil Chemists' Society, the Institute of Food Technologists and the Royal Society of Chemistry (U.K.). He is the first Editor in Chief of both Current Opinion and Current Research in Food Science, EIC of the Lipid Library (AOCS), and past EIC of Food Research International. Dr. Marangoni has trained over 100 people in his laboratory; many occupy positions of importance in the academe and industry, including 13 professors at major North American universities. Dr. Marangoni was honored as one of the 10 most influential Hispanic Canadians in 2012 and a Fellow of the Royal Society of Canada, the National Academy of Sciences, in 2018.

## **Matthias Militzer**

Professor  
The University of British Columbia, Canada

### **Presentation Title: To be determined**



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.

## Wenzheng Zhang

Professor  
Tsinghua University, China

### **Presentation Title: To be determined**

Wenzheng Zhang graduated from Fuzhou University in 1978, and earned her M.D. from USTB in 1983 and Ph.D. from McMaster University in 1991. She joined Tsinghua University in 1997, and became a professor in the Department (School) of Material Science and Engineering since 1999. Her research interests focus on quantitative understanding of microstructures developed from solid-state phase transformations. She identified the general features of preferred interfaces between the precipitates and the matrix in terms of singularity and periodicity, and developed a generic approach for quantitatively interpreting the precipitation crystallography, especially with measurable  $\Delta\mathbf{g}$  reciprocal vectors. She and her students have continuously made advances in the interfacial dislocation theory, for calculating the geometries of preferred interfaces and complicated dislocation structures. They also made progress on the experimental and simulation study of interface migration, and revealed the shear-coupled migration of the habit plane as the cause to the surface relief effect associated with growth of precipitates. In addition, her team has contributed both free software and database to facilitate the study of transformation crystallography. Wenzheng Zhang has authored ~130 peer-reviewed papers. She is a member of Phase Transformations Committee (TMS) and Committee of Defects in Solids (Chinese Society of Physics).



## Invited Speakers

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**Sébastien Yves Pierre Allain**

Institut Jean Lamour  
France

**Markus Apel**

RWTH Aachen University  
Germany

**Benoit Appolaire**

University of Lorraine  
France

**Pascal Bellon**

University of Illinois Urbana-Champaign  
USA

**Annika Borgenstam**

KTH Royal Institute of Technology  
Sweden

**Laure Bourgeois**

Monash University  
Australia

**Yann Le Bouar**

Laboratoire d'Etude  
des Microstructures (Onera-Cnrs)  
France

**Francisca G. Caballero**

Spanish National Center for Metallurgical  
Research (CENIM-CSIC)  
Spain

**Jianghua Chen**

Hunan University  
China

**Amy Clarke**

Colorado School of Mines  
USA

**Sabine Denis**

University of Lorraine  
France

**Hongbiao Dong**

University of Leicester  
United Kingdom

**Alphonse Finel**

Laboratoire d'Etude  
des Microstructures (Onera-Cnrs)  
France

**Damien Fabrègue**

INSA Lyon  
France

**Ernst Gamsjäger**

Montanuniversitaet Leoben  
Austria

**Hélio Goldenstein**

University of São Paulo  
Brazil

**Mohamed Goune**

Université de Bordeaux  
France

**Heung Nam Han**

Seoul National University  
Korea

**James M. Howe**

University of Virginia  
USA

**Mingxin Huang**

The University of Hong Kong  
Hong Kong, China

**Tilman Hickel**

Max-Planck-Institut  
für Eisenforschung GmbH  
Germany

**Zengbao Jiao**

The Hong Kong Polytechnic University  
Hongkong, China



**Xuejun Jin**  
Shanghai Jiao Tong University  
China

**Ernst Kozeschnik**  
Vienna University of Technology  
Austria

**Toshiyuki Koyama**  
Nagoya University  
Japan

**Eric Lass**  
NIST  
USA

**Huijun Li**  
University of Wollongong  
Australia

**Tong Li**  
Ruhr-Universität Bochum  
Germany

**Yanjun Li**  
Norwegian University of Science and  
Technology  
Norway

**Feng Liu**  
Northwestern  
Polytechnical University  
China

**Yongchang Liu**  
Tianjin University  
China

**Haiwen Luo**  
University of Science and Technology  
Beijing  
China

**Jian Luo**  
University of California, San Diego  
USA

**Knut Marthinsen**  
Norwegian University of Science and  
Technology  
Norway

**Bonvalet Manon**  
KTH Royal Institute of Technology  
Sweden

**Goro Miyamoto**  
Tohoku University  
Japan

**Tetsuo Mohri**  
Tohoku University  
Japan

**Nobuo Nakada**  
Tokyo Institute of Technology  
Japan

**Jianfeng Nie**  
Monash University  
Australia

**Jörg Neugebauer**  
Max-Planck-Institut  
für Eisenforschung GmbH  
Germany

**Elena Pereloma**  
University of Wollongong  
Australia

**Sophie Primig**  
UNSW Sydney  
Australia

**Dong Qiu**  
RMIT University  
Australia

**Ma Qian**  
RMIT University  
Australia

**Eugen Rabkin**  
Israel Institute of Technology (Technion)  
Israel

**Pedro Eduardo Jose  
Rivera-Diaz-del-Castillo**  
Lancaster University  
United Kingdom

**Jose Rodriguez-Ibabe**

CEIT  
Spain

**Ingo Steinbach**

Ruhr-University  
Germany

**Gang Sha**

Nanjing University of Science and  
Technology  
China

**Maria J. Santofimia**

Delft University of Technology  
The Netherlands

**Jilt Sietsma**

Delft University of Technology  
The Netherlands

**Cemal Cem Tasan**

Massachusetts Institute of Technology  
USA

**Katsuyo Thornton**

University of Michigan  
USA

**Peter W. Voorhees**

Northwestern University  
USA

**Jian Wang**

University of Nebraska – Lincoln  
USA

**Yunzhi Wang**

Ohio State University  
USA

**Chris Wolverton**

Northwestern University  
USA

**Wei Xu**

Deakin University  
Australia

**Wei Xu**

Northeastern University  
China

**Hongliang Yi**

Northeastern University  
China

**Yufeng Zheng**

University of Nevada, Reno  
USA

**Xiaoqin Zeng**

Shanghai Jiao Tong University  
China

**Yuhong Zhao**

North University of China  
China

**Sybrand van der Zwaag**

Delft University of Technology  
The Netherlands

## Schedule / Events

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### Schedule

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Date	Activity		
	<i>Morning</i>	<i>Afternoon</i>	<i>Evening</i>
June 28, Sunday	— —	Registration	Registration
June 29, Monday	Plenary Session	Parallel Sessions	Welcome Reception
June 30, Tuesday	Plenary Session	Parallel Sessions	— —
July 1, Wednesday	Parallel Sessions	— —	— —
July 2, Thursday	Parallel Sessions	Parallel Sessions	Banquet
July 3, Friday	Parallel Sessions	— —	— —
<b>Conference Venue:</b> Qujiang International Conference Center			

#### Welcome Reception

Monday, June 29 / Evening

Venue: Qujiang International Conference Center

All registered authors and participants are invited to attend the Welcome Reception free of charge.

A light meal and drinks will be served.

#### Banquet

Thursday, July 2 / Evening

Venue: Qujiang International Conference Center

All registered authors and participants are invited to attend the Banquet free of charge.

# Call for Papers

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## **Abstract Submission**

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If you wish to contribute a presentation or poster for PTM2020, please submit an abstract (less than 150 words) through the conference website: [www.ptm2020.com](http://www.ptm2020.com) by **December 31, 2019**.

Additional details including venue and accommodation information will be posted on the official website shortly and shown in the next announcement.

Do not hesitate to broadcast this announcement to your colleagues which may show interest in PTM2020 conference.

## **Extended Abstract**

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The extended abstracts are requested to submit through the conference website before **February 15, 2020**. All the accepted extended abstracts will be published in the conference proceedings which will be released to the public by China Machine Press and will be available at the conference beginning on 28 June 2020.

Please kindly download the authors guide, sample format and copyright transfer form from the conference website ([www.ptm2020.com](http://www.ptm2020.com)).

## **Presentation**

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- ✧ Authors could choose the type of presentation (oral or poster) in the registration. The final result will be given to the author after the paper is reviewed by experts.
- ✧ Each presentation could be arranged in the technical program only if at least one author's registration fee is paid before **March 15, 2020**.

## Aaronson Award / Hillert-Cahn Award

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### **Aaronson Award**

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The organizing committee of PTM2020 is pleased to announce the offering of the “Aaronson Award”, an award to be given every PTM conference to an outstanding graduate student or young researcher in recognition of his/her exceptional contribution to the physical metallurgy of phase transformations. The award is intended to commemorate Prof. Aaronson’s passion to understand phase transformations as exemplified through his teaching, scientific research, and in particular, his support and mentoring of students and young colleagues in the field. The award is open to all current graduate students or those who have graduated less than three years prior to PTM2020 (i.e. on or after July 1, 2017). Students should indicate that they wish to apply for the award when submitting their abstract for the conference. An application will consist of a curriculum vitae and a reference letter from their immediate supervisor, including a statement that they are eligible for the award.

**Applications should be sent as pdf-file to Conference Secretariat ([ptm2020@csm.org.cn](mailto:ptm2020@csm.org.cn)) before February 15, 2020.**

Please refer also to the official conference website: [www.ptm2020.com](http://www.ptm2020.com) regarding further information. Based on these applications a short list of nominees will be selected. These nominees will be expected to present their papers orally at the conference and as a paper in the proceedings. The written papers and oral presentations will serve as an important criterion to finalize the selection of the awardee.

### **Hubert I. Aaronson:**

Prof. Hubert I. Aaronson, simply known as Hub to his friends and colleagues, was a founding member of the PTM conference series. He received his BS, MS, and Ph.D. in metallurgical engineering from Carnegie Institute of Technology (now Carnegie Mellon University). Hub greatly influenced the field of solid-solid phase transformations through his publication of more than 300 scientific papers, teaching and support of young colleagues, and in organizing highly focused conferences on key topics important to the development of the field. He was particularly well known for his major contributions to the subjects of diffusional nucleation and growth, and the mechanisms of phase transformations. Hub was recognized with many awards, and was a member of the U.S. National Academy of Engineering; a fellow of The Minerals, Metals and Materials Society, and ASM International; and an honorary member of the Japan Institute of Metals. Hub’s passion to understand phase transformations, his impressive knowledge of the literature, his excellent experimental technique, and the high standards he set for himself and others in every aspect of scientific research, were an inspiration to his students and colleagues. As R.F. Mehl Professor Emeritus at Carnegie Mellon University, Hub pursued his passion for phase transformations until his passing in December 2005, not long after the PTM2005 conference. The PTM conference series will honor Hub’s many contributions to solid-solid phase transformations, and in particular to his support of students and young colleagues in the field, by offering the “Aaronson Award”, an award to be given every PTM conference to an outstanding graduate student or young researcher in recognition of his/her exceptional contribution to the physical metallurgy of phase transformations.

## Hillert-Cahn Award

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The Hillert-Cahn lectureship was instituted in 2010 in recognition of the outstanding contributions of John Cahn and Mats Hillert to the science of phase transformations in solid materials. It is awarded to a leading practitioner of the discipline at each PTM conference on recommendation of the organizing committee, and in consultation with Mats Hillert and former recipients.

Comment on the contributions of Mats Hillert and John Cahn:

Mats Hillert and John Cahn first made their presence widely felt in the 1950's with seminal publications: a wide-ranging contribution on the effects of interface curvature on phase transformations by Mats [1]; and a series of highly original papers by John with John Hilliard on the free energy of non-uniform solutions [2,3,4]. These and their many subsequent contributions played a major role in shaping the discipline. They each possess great breadth of interest and depth of insight; in addition to hosts of other honors, each has had a volume published of his selected works [5,6]. Without the contributions of Mats Hillert and John Cahn, the science of phase transformations would be a quite different and significantly diminished discipline.

1. Mats Hillert, *Jernkont. Ann.*, vol. 141, 1957, p. 11.
2. J. W. Cahn, J. E. Hilliard, *J. Chem. Phys.*, vol. 28, 1958, p. 258.
3. J. W. Cahn, *J. Chem. Phys.*, vol. 30, 1959, p. 1121.
4. J. W. Cahn, J. E. Hilliard, *J. Chem. Phys.*, vol. 31, 1959, p. 688.
5. "The selected works of John. W. Cahn", eds. W. Craig Carter, William C. Johnson, TMS, Warrendale, PA, 1998.
6. "Thermodynamics and phase transformations: the selected works of Mats Hillert", eds. John Ågren, Yves Bréchet, Christopher Hutchinson, Jean Philibert, Gary Purdy, EDP publishers, France. 2006.

### Previous Recipients:

2010 - Gary R. Purdy, McMaster University, Canada

2015 - Peter Voorhees, Northwestern University, USA

## **Exhibition, Workshop & Sponsorship Opportunities**

As the integral elements of the event, PTM2020 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 PTM2020. 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 .

### **Exhibition Condition**

The exhibition booth will be located near to the venue of PTM2020, the rent rate and booth size is Standard Booth: 3 × 3 (m<sup>2</sup>)

Standard booth will be provided: three-side wooden walls, one information desk, two chairs, two lights, one power outlet (220V) and company's name panel.

1. Exhibitors who wish to participate in the event please fill in Reservation form.
2. Exhibition booth arrangement: Due to venue constraints, the total number of booths is limited.

Booth will be arranged and confirmed based on the sequence of enrollment and payment successively.

### **Workshop**

The workshops will be held in Xi'an Qujiang International Conference Center from 14:00 to 17:00 on 28 June 2020. Companies are welcome to demonstrate their products, equipment, new technologies and manufacturing processes.

✧ **CNY 10000/1 hour**

# Registration / Visa Application

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## Registration

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- ✧ Registration Deadline for Authors **March 15, 2020**
- ✧ Early Registration Deadline for Participants **April 1, 2020**

## Fees

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### Authors

- ✧ **CNY 6000 (Regular)** **CNY 3800 (Student)**

- \*Notes: 1) Each accepted paper will be published in the conference proceedings only if at least one author's registration fee is paid before **March 15, 2020**.
- 2) Oral or poster presentation will be arranged only if at least one author's registration fee is paid before **March 15, 2020**.
- 3) Students are requested to submit the copy of their student ID.

### Participants

Registration Fee	Before April 1, 2020	After April 1, 2020 before June 15, 2020	On June 28, 2020
Regular Participants	CNY 6000	CNY 6500	CNY 7000
Retired Participants	CNY 3800	CNY 4300	CNY 4800
Students	CNY 3800	CNY 4300	CNY 4800

*\*Note: Students are requested to submit the copy of their student ID*

## Entitlement

### Registration Fee covers:

Conference fee, All official documentation (abstract and technical program book, conference proceedings USB, etc.), Welcome Reception on Monday, Banquet on Thursday, Daily Coffee Break, Lunch buffet on Monday, Tuesday and Thursday, Name badge

## Method of Payment

### 1. Online Payment

Through the conference online payment , all payments could be made in CNY by credit card.



## 2. Bank Transfer

Please transfer the registration fee to the following bank account, and specify with “PTM2020, Registration No.”. A copy of remittance certificate is requested to send to the conference secretariat or submit to the conference website.

Name of Bank	INDUSTRIAL AND COMMERCIAL BANK OF CHINA BEIJING MUNICIPAL BRANCH WANG FU JING SUB-BRANCH OFFICE
Beneficiary and Account Holder	The Chinese Society for Metals
Address	NO.237 WANG FU JING STREET, DONG CHENG DISTRICT, BEIJING 100006 P.R.CHINA
SWIFT ADDRESS	ICBKCNBJBJM
Account Number	0200000709089116848

**\*Notes:** 1) The Check will not be accepted

2) The registration fee doesn't include the bank charge.

3) The receipt will be provided at the registration desk during the conference.

## 3. Payment in CNY at the Registration Desk

Attendees are requested to pay by credit card in CNY on the registration day.

## Cancellation

Refunds cannot be given if cancellations received after June 15, 2020. Substitutions can be accepted at any time.

Please indicate the bank, branch and account number clearly to which the refund should be sent, and the refund will be made after the conference.

Cancellation	Refund
Before June 15, 2020	80%
After June 15, 2020	No refund (Conference proceedings will be sent to the authors after the conference)

## **Visa Application**

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People from most countries will be required to obtain a visa to enter the People's Republic of China. PTM2020 participants who are required to apply for visa to enter China can apply for a Chinese visa at the nearest Embassy or Consulate of China in your countries. For some visa applications, the process could take some time to complete, depending on your country of origin and certain visa restrictions so we would like to suggest you start the visa application as early as possible.

As conference hosts, we can issue you an invitation letter for your visa with the necessary signature and official stamp. If you need, please log in your account and download it in “My Page” after paying for your registration.

Tips: Local organizers could NOT provide conference invitation letter to accompanying personnel according to related regulations. We suggest that accompanying personnel apply for tourism type visa, which will be much easier and require less paperwork.

### **Notes:**

- 1. You should guarantee that all information provided is true and correct.**
- 2. In the letter for visa, we can only guarantee your stay in Xi'an during congress period.**
- 3. General visa information should be obtained from your local Embassy or Consulate of China.**

## Conference Venue / Hotel Reservation

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### Conference Venue

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The conference will be held in Xi'an Qujiang International Conference Center (QICEG) from June 29-July 3, 2020. QICEG is ideally located in the heart of Xi'an city adjacent to The Dayan Pagoda, Daci'en Temple, and which is next to the "Hui Zhan Zhong Xin (会展中心)" Station of subway line 2.

### Hotel Reservation and Official Travel Agent

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Xi'an Kaili Conference & Exhibition Co., Ltd. has been appointed as the official conference agent for the PTM2020 and will handle the hotel accommodation, travel and transportation during the conference. If you would like to get more information, please contact with:

Mr. Qi Gao

Xi'an Kaili Conference & Exhibition Co., Ltd.

Email: [gaoqi@kailimice.cn](mailto:gaoqi@kailimice.cn)

For the participants of PTM2020, the special rates will be effective from June 29 to July 3, 2020. All the participants are requested to book their accommodation through the conference website. Please kindly note that the one night's room fee will be charged as deposit.

*\*Notes:*

- 1) The rooms are reserved on a first-come-first-served basis.
- 2) The deadline of hotel reservation cancellation is **June 15, 2020**. Refunds cannot be given if cancellations received after the deadline.
- 3) If you have any questions about the hotel reservation, please contact us via email: [gaoqi@kailimice.cn](mailto:gaoqi@kailimice.cn)

The recommended hotels and room rate are as follows:

<b>Hotel</b>	<b>Ramada Plaza Xi'an South (西安曲江华美达广场酒店) ★★★★★</b>
<b>Room Type</b>	Standard Room (Twin beds / King bed)

**Room Rate** 600CNY (Including Breakfast)

**Network** Free WIFI

**Introduction** Ramada Plaza Hotel is only 5 minutes walking distance from the “Qujiang International Conference Center”.

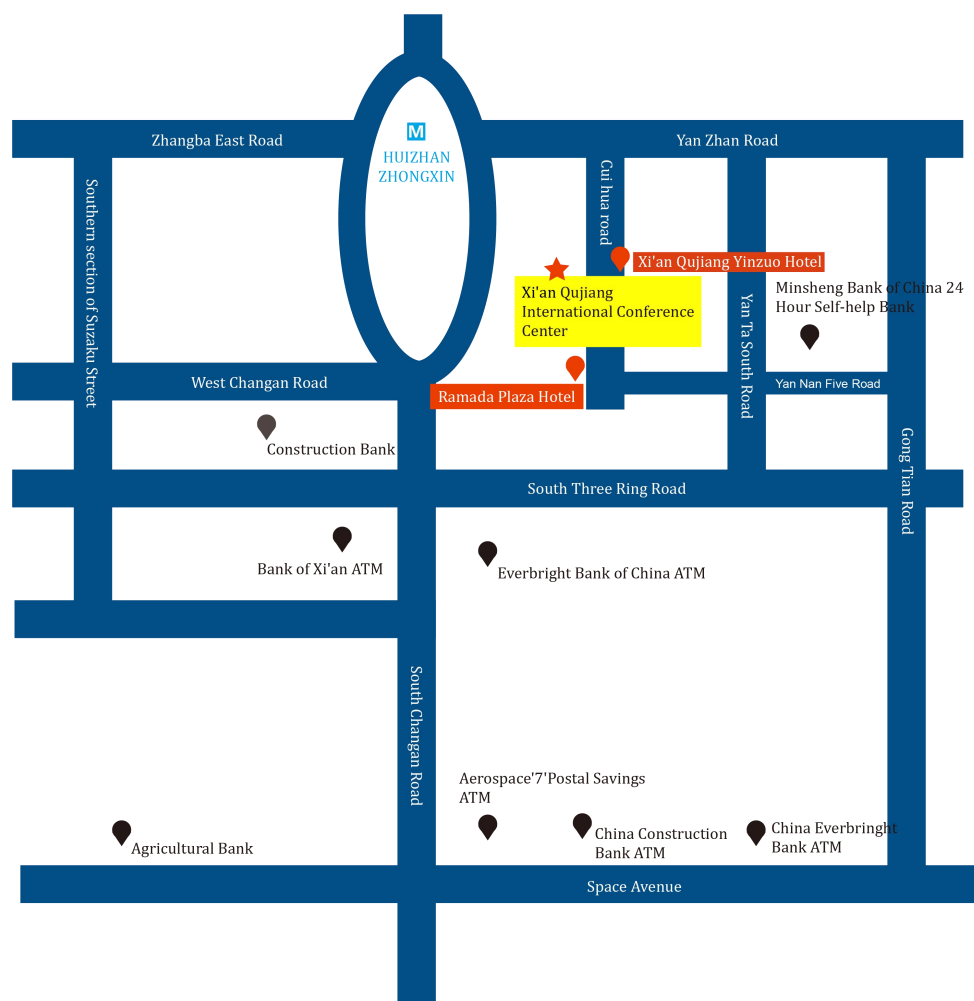
**Hotel** **Xi'an Qujiang Yinzuo Hotel (西安曲江银座酒店) ★★★★★**

**Room Type** Standard Room (Twin beds / King bed)

**Room Rate** 500CNY (Including Breakfast)

**Network** Free WIFI

**Introduction** Xi'an Qujiang Yinzuo Hotel is only 10 minutes walking distance from the “Qujiang International Conference Center”.



# General Information

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## **General Information**

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### **Climate and Clothing**

During June and July, the average temperature in Xi'an 22-33°C.

### **Currency**

Only CNY is acceptable at regular store and restaurants. Foreign currency or traveler's checks can be change into CNY at major banks, hotels and airports.

### **Credit Cards**

Credit cards are widely accepted. Commonly recognized cards include Visa and MasterCard.

### **Tipping**

There is no custom of tipping anywhere in China, even at hotels and restaurants. On certain occasions, however, a service charge is added to the bill.

### **Electrical Appliances**

The voltage in China is 220 volts for electrical appliances. Electrical sockets usually accept two-pronged (vertical) plugs and three-pronged (vertical) plugs.

### **Insurance**

The organizer cannot accept responsibility for accidents which might occur. It is recommended that participants take out adequate medical, travel and personal insurance prior to the commencement of travel.

### **Contact** (about the conference)

Dr. Hao Chen, Tsinghua University, Beijing 100084, China

Mr. Xin Zhao, Ms. Fang Liu, The Chinese Society for Metals, 76 Xueyuan Nanlu,  
Beijing 100081, China

Phone: + 86 10 6521 1205

Fax: + 86 10 6512 4122

Email: [ptm2020@csm.org.cn](mailto:ptm2020@csm.org.cn) Website: [www.ptm2020.com](http://www.ptm2020.com)

## Access



### Access from the nearest stations

#### Line 1: From XI'AN North Railway Station

Please take the subway line 1 to Hui Zhan Zhong Xin (会展中心) station, and then walk from Exit C to Qujiang International Conference Center.

#### Line 2: From XI'AN Railway Station

Please take the subway line 1 to Beidajie (北大街) station, and then transfer to Hui Zhan Zhong Xin (会展中心) station of subway line 2, walk from Exit C to Qujiang International Conference Center.

### Access by air

#### From Xi'an Xianyang International Airport

- 110-120 minutes by shuttle bus

Please take the airport shuttle bus to Ramada Plaza Xi'an South Hotel, and walk 150 meters to Qujiang International Conference Center.

➤ 50-60 minutes by taxi

Please show Taxi drivers the following note for your convenience to the conference venue.

Please take me to Xi'an Qujiang International Conference Center. Thank you!

请送我到西安曲江国际会议中心

(地址: 西安市曲江新区汇新路 15 号; 电话: +86-29-87655888)