

# EMPA – MATERIALS AND TECHNOLOGIES FOR A SUSTAINABLE FUTURE

As an interdisciplinary research institute of the ETH Domain, Empa, the Swiss Federal Laboratories for Materials Science and Technology, conducts cutting-edge materials and technology research. Empa's R&D activities focus on meeting the requirements of industry and the needs of society, and thus link applications-oriented research with the practical implementation of new ideas. As a result, Empa is capable of providing its partners with customized services and solutions that not only enhance their innovative edge and competitiveness, but also help to improve the quality of life for the public at large.



# MAX-PLANCK-INSTITUT FÜR EISENFORSCHUNG GMBH (MPIE)

Mobility, Energy, Infrastructure, Medicine and Safety — these fields of high public interest require advanced customized materials. The Max-Planck-Institut für Eisenforschung GmbH (MPIE) with its young and international team conducts basic research on metallic alloys and related materials to enable progress in these fields. The MPIE is financed by the Max Planck Society for the Advancement of Science and the Steel Institute VDEh, the representative of the steel industry in Germany. In this unique public-private partnership, the institute pursues an approach where materials systems are studied under consideration of their highly complex underlying nanostructures on the one hand and their exposure to extreme environmental conditions on the other hand.

#### GENERAL INFORMATION

Organising Empa – Swiss Federal Laboratories for

institutes Materials Science and Technology, Dübendorf

an

Max-Planck-Institut für Eisenforschung GmbH,

Düsseldorf

Location Empa, Dübendorf, Switzerland

Überlandstrasse 129

AKADEMIE

Costs Early Bird: € 420 / € 180 Student

Regular: € 470 / € 230 Student

including admission, conference dinner and catering during lunch and coffee breaks
Package price with AMPA conference available.

Registration www.mpie.de/aams2017

#### Abstract submission

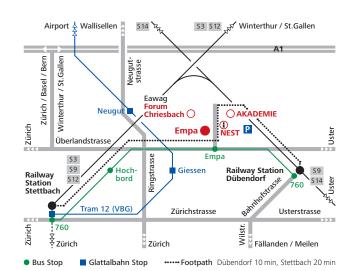
deadline May 15, 2017

Contact MPIE Empa

Dr Eric JägleDr Christian Leinenbache.jaegle@mpie.dechristian.leinenbach@empa.ch

**How to** Please do use public transport.

**get here** There is only very limited parking available.







### SYMPOSIUM

## AAMS17

Alloys for Additive Manufacturing Symposium



Empa, Dübendorf, Überlandstrasse 129 Monday & Tuesday, September 11 & 12, 2017

Online registration: www.mpie.de/aams2017

#### TOPIC

As Additive Manufacturing technologies are being adopted in more and more industries, the focus of research and development is shifting to the materials in use. Limited processability of high-performance materials restrict the robustness of the process in some cases, while in other cases the best materials for a given application cannot be processed at all. The root cause of the limited processability leading to defects (e.g. cracks and pores) may lie in a number of material behaviours during and after the process such as solidification and other phase transformations behaviour and/or residual stress development.

On the other hand, an increasing number of researchers in academia and industry realise the potential of Additive Manufacturing to produce materials that could not previously be made by conventional manufacturing techniques or were not economically feasible. Such new materials exploit the unique features of Additive Manufacturing processes and the fact that some of the constraints of traditional manufacturing (e.g. formability requirements) are relaxed. Examples include unconventional composites or materials far from equilibrium.

#### SYMPOSIUM SCOPE

The Alloys for Additive Manufacturing Symposium aims to be a venue for the discussion of all these issues by researchers in academia and relevant fields of application. All materials scientific issues pertaining to the additive manufacturing of metals, alloys and composites including a metallic phase fall under the scope of this conference. This includes experimental and theoretical research on powder making, in-process materials behaviour, post-processing and the resulting materials properties. In particular contributions concerning the optimisation of existing alloys for Additive Manufacturing processes and the design of new, tailor-made alloys are encouraged.

#### CONFERENCE FORMAT

Following a successful workshop on the same topic in summer 2016 held at MPIE Düsseldorf, the AAM Symposium 2017 will be organised in the form of a two-day conference at Empa Akademie in Dübendorf, Switzerland (near Zürich) from 11<sup>th</sup> to 12<sup>th</sup> September 2017. Both oral and poster contributions are invited. Submission of abstracts will be possible until May 15, 2017 at the conference website www.mpie.de/aams2017.

From 13<sup>th</sup> to 15<sup>th</sup> September, the Additive Manufacturing in Products and Applications (AMPA) conference will take place at ETH Zürich (www.ampa.ethz.ch). For visitors wishing to attend both conferences, special package prices for registration will be available at both conference websites.

### SCIENTIFIC COMMITTEE

Prof. Jan van Humbeeck KU Leuven

Dr Eric Jägle MPIE, Düsseldorf (co-organiser)

Dr Christian Leinenbach Empa, Dübendorf (co-organiser)

Prof. Roland Logé EPFL, Lausanne

Prof. Dierk Raabe MPIE, Düsseldorf

**Prof. Iain Todd** University of Sheffield

#### REGISTRATION

## AAMS17

Alloys for Additive Manufacturing Symposium

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Abstract submission deadline: May 15, 2017

Please register online:

www.mpie.de/aams2017

You will receive confirmation by e-mail.