

January, 13 – Afternoon session

12:00 – 13:00 LUNCH

13:00- 13:15 Greetings and Introduction

INVITED SPEAKERS SESSION

Session Chair: Dr. Annika Strondl

13:15 – 14:00 Prof. Iain Todd, The University of Sheffield, UK

14:00 – 14:30 Seyed B. Hosseini, Senior manager for the Additive Manufacturing Team (3D-printing), RISE IVF, Sweden

15 min break

PRESENTATIONS

Session Chair: Prof. Marta-Lena Antti

14:45 – 15:00 Adrien Da Silva, Luleå University of Technology
“An investigation of Laser Metal Drop Deposition for Additive Manufacturing”

15:00 – 15:15 Jinghao Xu, Linköping University
“Alloy design and characterization of Ni-base superalloys for additive manufacturing”

15:15 – 15:30 Bharat Mehta, Chalmers University of Technology
“Precipitation kinetics and structure-property correlation in novel Al-Mn based aluminium alloys tailored for LB-PBF process”

15:30 – 15:45 Linda Squillaci, University West
“The effect of increasing particle size distribution on process parameters and mechanical properties of laser powder bed fusion built Ti-6Al-4V”

30 min Coffee break

PRESENTATIONS

Session Chair: Prof. Johan Moverare

16:15 – 16:30 Karthikeyan Thalavai Pandian, University West
“Elevated temperature tensile properties of low-temperature HIP treated EBM built Ti-6Al-4V”

16:30 – 16:45 Viktor Sandell, Luleå University of Technology
“Fracture characterization of Chemically Post-Processed Electron Beam Melted Ti-6Al-4V”

16:45 – 17:00 Hanna Nilsson - Åhman – information on PhD network within the Swedish AM Arena

17:00 – 17:45 POSTER SESSION

On-site:

Patrik Karlsson, Örebro University

“ROBODAM - ROBust Optimisation in Design for Additive Manufacturing”

Tina Hajali, Chalmers University of Technology

“Digitalization- a critical issue for enabling DfAM”

Didunoluwa Obilanade, Luleå University of Technology

“Surface Roughness Considerations in Design for Additive Manufacturing”

Simon Tidén, Uppsala University

“The influence of graphene on the microstructure and mechanical properties of 3D printed 316L stainless steel”

Johan Moverare, Linköping University

“Influence of post-heat treatment and cell structures on the fatigue behaviour of LPBF stainless steel 316L”

Stefan Roos, Mid Sweden University

“Process development for Electron Beam Melting of stainless steels”

William Sjöström, Mid Sweden University

“Local microstructural tailoring of the Z-direction in Electron Beam Melting”

Ethan Sullivan, KTH Royal Institute of Technology

“Effect of electron beam parameters on reaction synthesis of aluminum metal matrix composites and upcoming E-PBF work at KTH”

Online:

Mikael Sahl, University West

“Experimental validation of a mathematical model of immersion annular phased array probe”

Adam Mallalieu, Chalmers University of Technology

“Industrialisation of AM - Identification of impacting factors”

Claudia Schwerz, Chalmers University of Technology

“In-situ detection of redeposited spatter and its influence on the formation of internal flaws in laser powder bed fusion”

Rasmus Gunnerek, Chalmers University of Technology

“Experimental design strategies for improving productivity of 316L stainless steel produced by laser-based powder bed fusion”

Cheng-Han Yu, Linköping University

“Low cycle fatigue of LPBF thin-walled stainless steel 316L”

Julia Löfstrand, Uppsala University

“Combinatorial sputtering for high throughput mapping of compositions suitable for AM of soft magnetic metallic glasses”

18:00 - 21:00 MINGLE and DINNER

January, 14 – Morning/afternoon session

INVITED LECTURE

Session Chair: Prof. Anders Palmqvist

**09:00 – 09:45 Prof. Erik Schkommodau, University of Applied Sciences
Northwestern Switzerland, Switzerland**

“Implant design and manufacturing: an overview and actual development trends”

PRESENTATIONS

Session Chair: Prof. Pavel Krakhmalev

10:00 – 10:15 Tatiana Fedina, Luleå University of Technology

“Laser powder bed fusion of arbitrarily shaped powders”

10:15 – 10:30 Inga Katharina Goetz, Uppsala University

“In-situ nitride formation in additive manufacturing with nitrogen as a reactive process gas”

10:30 – 10:45 Bala Malladi, Chalmers University of Technology

“Microstructural characterization of interstitial solid solution strengthened CoCrNi medium entropy alloy”

30 min Coffee break

PRESENTATIONS

Session Chair: Prof. Robert Pederson

11:15 – 11:30 Hanna Nilsson Åhman, Uppsala University

“Challenges and possibilities of processing magnesium alloys by powder bed fusion - laser beam”

11:30 – 11:45 Lisa Larsson, Uppsala University

“On the Residual Stress in Biodegradable Magnesium Alloys Produced by Powder Bed Fusion Laser Beam”

11:45 – 12:00 Freddy Leijon, Linköping University

“High throughput printability screening of AlMgSi alloys for AM”

12:00 – 12:15 Kumar Babu Surreddi, Högskolan Dalarna

“Microstructure and Mechanical properties of additively manufactured samples using in-situ SEM micro testing”

12:15 – 13:15 LUNCH

INVITED LECTURE

Session Chair: Prof. Lars Nyborg

13:15-14:00 Prof. Mariangela Lombardi, Politecnico di Torino, Italy

“Additive Manufacturing of metallic parts @ Politecnico di Torino: past, present and future”

PRESENTATIONS

Session Chair: Prof. Lars Nyborg

14:15 – 14:30 Ivan Zhirnov, Karlstad University

“Acoustic Data from Laser Powder Bed Fusion Processes”

14:30 – 14:45 Prabhat Pant, Linköping University

“Scan strategies: Implications on residual stresses and microstructure in LPBF parts”

14:45 – 15:00 Hans-Henrik König, KTH Royal Institute of Technology

“A sample environment for in-situ synchrotron X-ray studies on electron beam powder bed fusion (E-PBF) of metal”

15:00 – 15:30 Concluding remarks