

Phase Transformations and Microstructural Evolution in Additive Manufacturing



DAY ONE – MONDAY 9 AUGUST 2021

11.30-11.45am	Welcome and opening remarks Associate Professor Gwénaëlle Proust (University of Sydney)
11.45am-12.45pm	Opening plenary – Professor Tresa Pollock (UC Santa Barbara, USA) <i>At the Crossroads of Additive Manufacturing, Analytics and Advanced Materials</i>
12.45-2.00pm	Lunch break
2.00-2.40pm	Dr Behrang Poorganji (University of Toledo, USA) <i>Additive Manufacturing of Advanced Alloys: Material Design and Process Development Considerations</i>
2.40-3.20pm	Distinguished Professor Ma Qian (RMIT) <i>Additive Manufacturing of Advanced Alloys: Material Design and Process Development Considerations</i>
3.20-4.00pm	Dr Alexandra Shekhter (DST Group) <i>Air and Space Platforms Technologies: Outlook and Challenges for Defence</i>
4.00-4.05pm	Closing comments Professor Simon Ringer (University of Sydney)

Symposium Organisers: Simon Ringer (Chair), Gwénaëlle Proust (Co-Chair)

Symposium Secretariat: Tanya Smith (Materials Australia), Renee Barber (University of Sydney)

Symposium Supporters: Sydney Manufacturing Hub, 3D Additive (AUSMURI),
GE Additive

DAY TWO – TUESDAY 10 AUGUST 2021

8.55-9.00am	Welcome – Associate Professor Gwénaëlle Proust (University of Sydney)
9.00-10.00am	Opening plenary – Professor Sudarsanam Suresh Babu (University of Tennessee Knoxville, USA) <i>Role of Thermo-Mechanical-Chemical Transients on Liquid to Solid and Solid to Solid Phase Transformations during Additive Manufacturing</i>
10.00-10.40am	Ms Amber Andreaco (GE Additive, USA) <i>Characterizing Additive Materials: Pedigree Driven Case Studies</i>
10.40-11.00am	Morning break
11.00-11.40am	Dr Sri Lathabai (CSIRO) <i>Laser Powder Bed Fusion Additive Manufacturing of Self-Expanding Nitinol Stents</i>
11.40am-12.20pm	Professor Matthew Dargusch (University of Queensland) TBA
12.20-1.00pm	Professor Lai-Chang Zhang (Edith Cowan University) <i>Enhanced Performance of Metallic Lattice Structures Fabricated by Additive Manufacturing</i>
1.00-2.00pm	Lunch break
2.00-2.30pm	Dr Wen Hao Kan (Monash University) <i>Effects of In-Situ Rolling on the Microstructure and Mechanical Properties of Additively-Manufactured Ti-6Al-4V</i>
2.30-3.00pm	Dr Xiaopeng Li (UNSW) <i>Additive Manufacturing of Aluminium: Alloy Design and Machine Learning Assisted Process Optimisation</i>
3.00-3.30pm	Dr Fatemeh Azhari (University of Melbourne) <i>Predicting the Tensile Properties of Additively Manufactured Ti-6Al-4V using a Crystal Plasticity Finite Element Model</i>
3.30-4.00pm	Afternoon break
4.00-4.40pm	Assistant Professor Matteo Seita (Nanyang Technological University, Singapore) <i>Grain Boundary Engineering of Stainless Steel 316L via Laser Powder Bed Fusion</i>
4.40-5.20pm	Professor Dr Dierk Raabe (Max Planck Institute, Germany) <i>Microstructure- and Alloy-Design for Additive Manufacturing</i>
5.20-6.00pm	Dr Catrin Mair Davies (Imperial College London, UK) TBA
6.00-6.10pm	Closing remarks – Professor Simon Ringer (University of Sydney)