

## Programme

### Wednesday, 9<sup>th</sup> February 2022 - Microsymposium UDM3

#### Session I

Chair: Alexander Rack

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| 10:00 – 10:05 | Introduction to the microsymposium UDM3   |   |
| 10:05 – 10:40 | <a href="#">Keynote 1</a> : Seeing inside laser additive manufacturing processes using physical twins and fast-speed X-ray imaging                      | <b>Chu Lun Alex Leung</b> ,<br>University College London  |
| 10:40 – 11:00 | <a href="#">Talk 1</a> : Metallic additive manufacturing from microstructure to macroscopic architecture : the characterization scale dilemma           | <b>Pierre Lhuissier</b> , SIMaP – CNRS UMR                |
| 11:00 – 11:20 | <a href="#">Talk 2</a> : New Insights into Laser Additive Manufacturing from correlative Synchrotron X-rays Imaging                                     | <b>Yunhui Chen</b> ,<br>University of Manchester          |
| 11:20 – 11:40 | <a href="#">Talk 3</a> : Effect of local gas flows and adapted intensity distributions on keyhole formation and energy absorption in laser beam welding | <b>Leander Schmidt</b> , Ilmenau University of Technology |
| 11:40– 12:10  | Discussion  |   |

#### Lunch Break

#### Session II

Chair: Guillermo Requena

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| 13:10 – 13:45 | <a href="#">Keynote 2</a> : Combining synchrotron X-radiography and Bragg diffraction imaging to unveil the microstructure formation in metal alloys and silicon | <b>Guillaume Reinhart</b> , CNRS - IM2NP         |
| 13:45 – 14:05 | <a href="#">Talk 4</a> : Understanding the physical-chemical phenomena in green steel production using synchrotron X-ray technique                               | <b>Yan Ma</b> , Max Planck Institute, Düsseldorf |
| 14:05 – 14:25 | <a href="#">Talk 5</a> : Texture and dislocation density of plastically deformed crystals  | <b>Andras Borbély</b> , Mines Saint-Etienne      |
| 14:25 – 14:45 | <a href="#">Talk 6</a> : In situ 3D nano-imaging: high temperature tensile deformation in light alloys   | <b>Anthony Harrup Gutiérrez</b> , ESRF           |

#### Break

#### Session III

Chair: Wolfgang Ludwig

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| 15:00– 15:35  | <a href="#">Keynote 3</a> : DFXM Mapping of Strain and Mosaicity in Cu and TiN Grains: Resolving Annealing-Induced Intragranular Changes in Metals and Ceramics  | <b>Jozef Keckes</b> , Montanuniversität          |
| 15:35 – 15:55 | <a href="#">Talk 7</a> : Exploring distortion in Mg <sub>0.2</sub> Co <sub>0.2</sub> Ni <sub>0.2</sub> Cu <sub>0.2</sub> Zn <sub>0.2</sub> O high entropy oxide: a dark field X-ray microscopy investigation | <b>Martina Fracchia</b> , University of Pavia    |
| 15:55 – 16:15 | <a href="#">Talk 8</a> : High-speed in situ dynamic brittle fracture imaging by synchrotron X-ray diffraction topography   | <b>Samuel Tardif</b> , University Grenoble Alpes |
| 16:15 – 16:35 | <a href="#">Talk 9</a> : L.A B. Marçal: Fast imaging of ferroelastic domains in a single crystal perovskite by in situ Full-Field Diffraction X-ray Microscopy   | <b>Lucas Marçal</b> , Lund University            |
| 16:35 – 17:05 | Discussion   |  |