

Workshop Program “Information Exchange and Consortia Building”, 13 July 2020

Time	Topic / Speaker	TFA
9:45	Introduction and overview Dr. Lars Sommerhäuser, Program Manager SFA Advanced Manufacturing, Empa	
10:00	Digital fabrication for future customized and sustainable processing Prof. Mirko Meboldt, pd z - Product Development Group Zurich, ETH Zürich	TFA I
10:15	Multi-powder selective laser melting Prof. Markus Bambach, Advanced Manufacturing, ETH Zürich	TFA I
10:30	PTA assisted laser DMD processing head for ultra-high deposition rates Prof. Konrad Wegener, Institute for Machine Tools and Manufacturing (IWF), ETH Zürich	TFA I
10:45	Ultrasound-Assisted 3D printing Prof. Daniel Ahmed, Acoustic Robotics Systems Lab , ETH Zürich	TFA I
11:00	Coffee Break	
11:15	Multi-functional precision Ceramic printing Prof. Christophe Moser, Laboratory of Applied Photonics Devices, EPFL	TFA I
11:30	Reinforcement strategies for concrete printing Dr. Moslem Shahverdi, Structural Engineering Research Lab, Empa / Prof. Benjamin Dillenburger, Digital Building Technologies, ETH Zürich	TFA I
11:45	Electrochemical additive manufacture eAM for producing metallic metamaterials Dr. Laetitia Philippe, Laboratory for Mechanics of Materials & Nanostructures, Empa	TFA I
12:00	Lunch Break	
13:15	Nanoheat Prof. Juergen Brugger, Microsystems Laboratory, EPFL	TFA I
13:30	Advancing manufacturability of hybrid organic-inorganic semiconductors for large area optoelectronics Dr. Quentin Jeangros, Photovoltaics and Thin Film Electronics Laboratory, EPFL	TFA I
13:45	Printing 3D oriented magnets (PRIMA) Prof. Dirk Grundler, Laboratory of Nanoscale Magnetic Materials and Magnonics, EPFL	TFA II
14:00	Direct ink writing of multifunctional aerogels Wim Malfait, Laboratory for Building Energy Materials and Components, Empa	TFA II
14:15	Coffee Break	

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14:30	Additive Manufactured Shape-Memory Alloy Actuators Dr. Christoph Klahn, pd z - Product Development Group Zurich, ETH Zürich	TFA II
14:45	Additive manufacturing of living structures Prof. Mark Tibbitt, Macromolecular Engineering Laboratory, ETH Zürich	TFA II
15:00	Materials and Technologies for additive fabrication of multi-functional microsystems Prof. Vivek Subramanian, Laboratory for Advanced Fabrication Technologies, EPFL	TFA II
15:15	Multi-material fibers for advanced functionality integration Prof. Fabien Sorin, Laboratory of Photonic Materials and Fiber Devices, EPFL	TFA II
15:30	Coffee Break	
15:45	Nanocoat - Bioactive Nano-architected Implant Coatings Prof. Inge Herrmann, Nanoparticle Systems Engineering, ETH Zürich & Empa	TFA II
16:00	SensoFusion - Functional integration of scalable, precise sensor functionalization techniques for machine learning-assisted, modular gas sensors Dr. Kishan Thodkar, Micro and Nanosystems, ETH Zürich	TFA II
16:15	Sensors for semiconductor and pharmaceutical cleanrooms Prof. Jing Wang, Institute of Environmental Engineering, ETH Zürich	TFA III
16:30	3D-printed perovskite X-ray array detectors Prof. Patrik Hoffmann, Laboratory for Advanced Materials Processing, Empa	TFA III
16:45	Coffee Break	
17:00	Intelligent, autonomous manufacturing cell for SLM Prof. Konrad Wegener, Institute for Machine Tools and Manufacturing (IWF), ETH Zürich	TFA IV
17:15	Data-Driven Digital Fabrication for Construction Prof. David Kammer, Institute for Building Materials, ETH Zürich	TFA IV
17:30	Wrap up and outlook on the next steps of the call 2020 Dr. Lars Sommerhäuser, Program Manager SFA Advanced Manufacturing, Empa	

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General topics and breaks	TFA I – Manufacturing Technologies	TFA II – Functionality Integration	TFA III – Sensing Technologies	TFA IV – Intelligent Systems and Advanced Automation
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