

TUTORIAL - relevant knowledge for cross-fertilization

25 January 2021



5D NANOPRINTING

TUTORIAL

Functional & Dynamic 3D Nano- Micro-Devices
via Two-Photon Lithography



H2020-FETOPEN-2018-2019-2020-01
FET Open Challenging Current Thinking
Grant agreement no. 899349

AGENDA

Time (Italy; CET) (GMT+1)	Section	Speaker
Tutorial Intro		
09:30-09:45	Welcome and short introduction of project and tutorial	Virgilio Mattoli (IIT-CMBR) Project Coordinator & Larisa Florea (TCD)
Direct Laser Writing – Background and State-of-the-Art		
09:45-10:15	General Introduction to the Technical Progress of Multi-Photon Lithography	Alexander Legant Nanoscribe
10:15-10:45	Bioinspired Structures Fabricated by Direct Laser Writing	Virgilio Mattoli (IIT-CMBR) Omar Tricinci (IIT-CMBR)
10:45-11:00	<i>Coffee Break</i>	
State-of-the-Art in Functional Materials for 2-photon Lithography		
11:00-11:30	Functional Materials and Responsive Systems – Design of Functional Inks and Erasable Structures	Eva Blasco (KIT/UAH)
11:30-12:00	Functional Materials and Responsive Systems – - Stimuli-Responsive Hydrogel-Based Microstructures - Liquid Crystalline Materials	Larisa Florea (TCD)
12:00-12:30	Functional Materials and Responsive Systems – - Composite Materials - Conductive Materials	Virgilio Mattoli (IIT-CMBR) Marco Carlotti (IIT-CMBR)
12:30-13:30	<i>Lunch Break</i>	
Alternative Fabrication and Characterisation Methods at the Micron-/Sub-micron Scale		
13:30-14:00	Atomic Layer Deposition (ALD) and its Derivatives - Plasma Enhanced ALD - Area Selective ALD	Anna Maria Coclite (TUG)
14:00-14:30	Solvent-free Chemical Vapour Deposition/Controlled Polymerization Methods	Ranjita Bose/Patrizio Raffa/Francesco Picchioni (RUG)
14:30-15:00	Additive (or Direct) Techniques for Soft Electronics	Francesco Greco (TUG) Virgilio Mattoli (IIT-CMBR)
15:00-15:30	Three-Dimensional Electron Diffraction for Structural Characterisation	Mauro Gemmi (IIT-CNI)
15:30-15:45	<i>Coffee Break</i>	
Applications		
15:45-16:15	MEMS Fabrication by Direct Laser Writing	Alberto Roncaglia (CNR)
16:15-16:45	MEMS and global market	Luca Zanotti (ST-I)
16:45-17:00	Concluding remarks	Larisa Florea (TCD)

*When approved, presentations will be recorded during the Tutorial and posted on the 5D Nanoprinting Website.