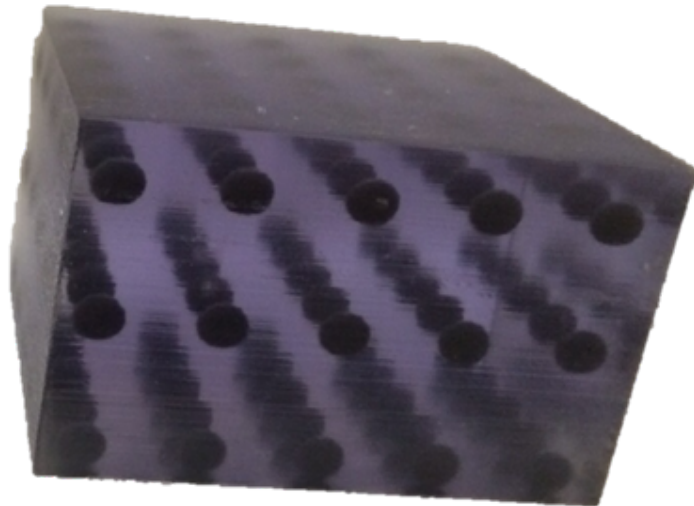


Optics and Photonics Group
Lunchtime Seminar

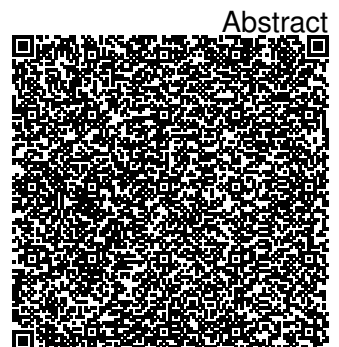
**“Multimaterial manufacture
by combining optical tweezers
with multiphoton fabrication”**

Meisam Askari



1:00pm Wednesday 6th March 2019
203 Tower building
All Welcome

http://optics.nottingham.ac.uk/wiki/Talks_2019



“Multimaterial manufacture by combining optical tweezers with multiphoton fabrication”

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Multi-Photon Polymerization (MPP) is a technique used to fabricate complex micro-scale 3D structures using ultra-short laser pulses. Typically, MPP is used to manufacture micron-scale components in photopolymer materials. However, the development of micron scale processes that can produce components from multiple materials within a single manufacturing step would be advantageous. This would allow the inclusion of microbeads that are manipulated and embedded within structures with sub-micron feature sizes. To achieve this, an MPP system was combined with optical trapping (OT) setup in order to independently manipulate microparticles in the x, y and z planes. Particles were transported into the fabrication site using the OT and encapsulated using a burst of the MPP laser. My talk will be about the development process of this technique.