OPTICS & PHOTONICS
UNIVERSITY OF NOTTINGHAM

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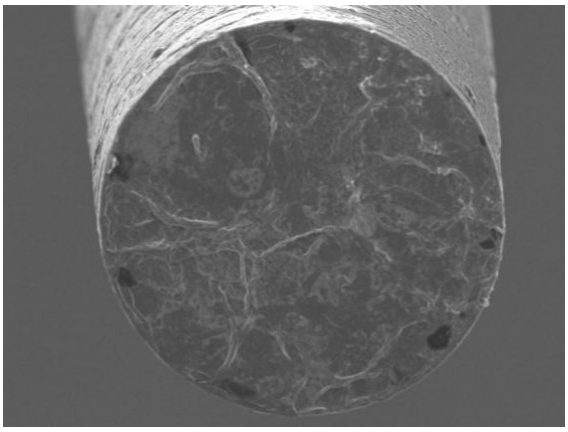
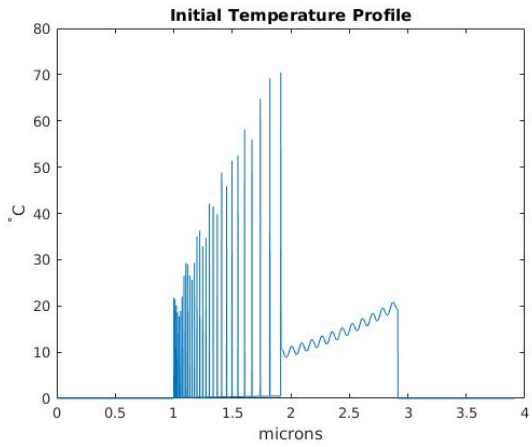
Optics and Photonics Group Lunchtime Seminar

"In vivo medical and aerospace diagnostics: engineering the unity of laser ultrasonic transducers and optical fibre"

Salvatore La Cavera III





12:00pm Thursday 22nd June 2017
203 Tower Building
All Welcome

Abstract

http://optics.nottingham.ac.uk/wiki/Talks_2017

“In vivo medical and aerospace diagnostics: engineering the unity of laser ultrasonic transducers and optical fibre”

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Advances in high-frequency laser ultrasound have afforded the ability to perform phononic imaging on live-cells with sub-optical axial resolution. Currently, such techniques are optimal in vitro, where the GHz frequency ultrasound is generated and detected by placing the transducer in direct contact with the specimen of interest. In order to achieve in vivo diagnoses of flaws and disease in engineering and biomedical applications, laser ultrasonic transducers should be capable of greater acoustic penetration depths and superior device mobility, among other features. This talk will focus on my first year PhD efforts to bring high-frequency laser ultrasound to the tip of an optical fibre.