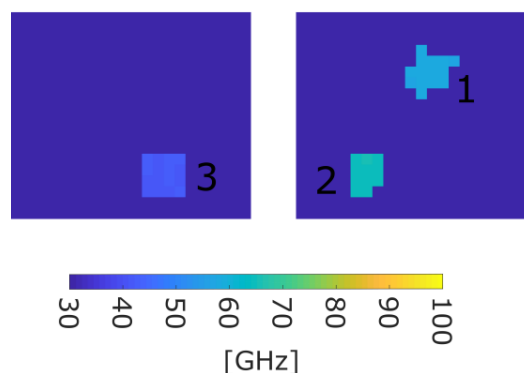
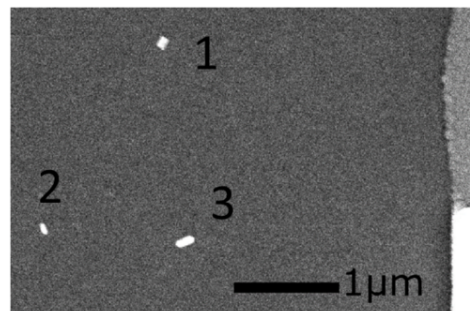


Optics and Photonics Group
Lunchtime Seminar

**“Gold nanorod
opto-acoustic
transducers”**

Shakila Naznin



13:00 Wednesday 19 February 2020
203 Tower Building
All Welcome

http://optics.nottingham.ac.uk/wiki/Talks_2020



“Gold nanorod opto-acoustic transducers”

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Metallic nanorods are of special interest in laser and picosecond ultrasonics because they exhibit anisotropic localized surface plasmon resonance that can be tuned from visible to near infrared by changing the size and shape of the rods. This in turn allows us to think about the generation and detection of ultrasound in GHz region by controlling the size, shape and orientation of the nanorods. Nanorods can be turned on and off by changing the polarization of light or the orientation because they exhibit different absorption and scattering properties for different orientations or different polarizations of light. This might open a way to achieve super-optical resolution imaging by using super-localization technique avoiding fluorophores. In this talk, I will present time-resolved measurements of gold nanorods to characterize their sizes and localization of nanorods that may lead to super-resolution imaging.