

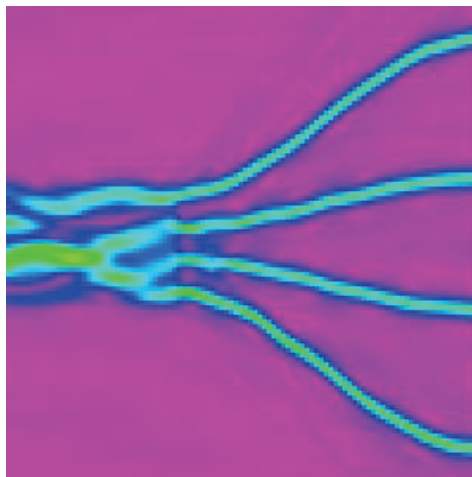
Photonic Quantum Technologies

Prof. Jeremy O'Brien

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Tuesday 6th November 2012

Talk starts at 7.30 pm in the Royal Society of Edinburgh, 22 - 26 George Street, with refreshments from 7.00 pm



Talk abstract: The first quantum technology that harnesses quantum mechanical effects for its core operation has arrived in the form of commercially available quantum key distribution systems. This technology achieves enhanced security by encoding information in photons such that an eavesdropper in the system can be detected. Anticipated future quantum technologies include large-scale secure networks, enhanced measurement and lithography, and quantum information processors, which promise exponentially greater computational power for particular tasks. Photonics is destined to have a central role in such technologies owing to the high-speed transmission and outstanding low-noise properties of photons. These technologies will undoubtedly apply and drive state-of-the-art developments in photonics.

Free and open to non-members

For more information contact Robert Thomson (R.R.Thomson@hw.ac.uk)