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LICHFIELD **GARRICK**
Theatre & Studio

PRESIDENT

Dr Zsuzsanna Nagy

MD, MA, DPhil

8:00 pm on Tuesday, 14th March 2017

in the Studio Theatre of the Lichfield Garrick, Castle Dyke, Lichfield

QUANTUM METROLOGY FOR THE 21ST CENTURY

Dr Jonathan Williams FIET, C.Eng., MInstP.
National Physical Laboratory

Quantum metrology, which uses quantum effects to enhance the precision of measurement beyond that possible through classical approaches, has revolutionised our fundamental measurement infrastructure throughout the world. The International System of units (SI) is about to undergo a transformation which will place quantum effects at the heart of measurements for the physical sciences. This lecture will review the technical achievements of quantum metrology over the last 60 years and explain how quantum effects will be used to maintain a universal and accessible system of units for the 21st century.

Jonathan Williams is a Principal Research Scientist in the Quantum Metrology Institute at the National Physical Laboratory. He is responsible for the realisation of quantum standards for electrical quantities and has developed several instruments utilising quantum effects for industrial measurement. He is also a Visiting Professor at the Physics Department of Royal Holloway University of London where he gives a lecture course on measurement principles to 3rd year undergraduates. He is a Fellow of the Institution of Engineering and Technology, a Chartered Engineer, a member of the Institute of Physics and a Liveryman of the Worshipful Company of Scientific Instrument Makers.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.

Visitors £5.00. Tickets are not issued in advance, please pay at the door.

Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.

This lecture is expected to finish by 10.00 pm.