

White light generation and application Tuesday 3rd March 2009 - 14:00-15:30

University of Strathclyde John Arbuthnott Building – Lecture Theatre SB151

<u>Schedule</u>

14:00 Michael Mazilu, University of St Andrews (UK), "Optical forces in white light vortex beams"

14:30 **Keynote Lecture:** Prof. John Dudley, University of Franche-Comte (France), "Nonlinear Fiber Optics and Supercontinuum Generation: New Fibers, New Opportunities"

John Dudley received B.Sc and Ph.D. degrees from the University of Auckland in 1987 and 1992 respectively. In 1992 and 1993, he carried out postdoctoral research at the University of St Andrews in Scotland before taking a lecturing position in 1994 at the University of Auckland. In 2000, he was appointed Professor at the University of Franche-Comté in Besançon, France, where he currently heads the Optoelectronics and Photonics research group. He was named a member of the Institut Universitaire de France in 2005, and elected a Fellow of the Optical Society of America and a Senior Member of the IEEE in 2007. He serves on the Editorial boards of Optics Express, Optical and Quantum Electronics and Optical Fiber Technology. He is General Chair of CLEO Europe 2009 and currently serves as the secretary of the Quantum Electronics and Optics Division of the European Physical Society.

Abstract: Research in nonlinear fiber optics is currently undergoing dramatic expansion, motivated by advances and developments in new classes of optical fiber and the ready availability of a wide range of optical pump sources. This lecture will survey selected recent work in this field that has investigated novel nonlinear propagation effects in both photonic crystal and highly nonlinear optical fibers, and will focus particular attention on the physics and applications of supercontinuum generation. The lecture will provide both a tutorial review of the basic supercontinuum generation broadening mechanisms as well as a discussion of recent developments and applications.