



## ***IEEE Photonics Society Distinguished Lecture***

**Center for Advanced Research in Photonics  
&  
Department of Electronic Engineering  
The Chinese University of Hong Kong**

**Advances in Nonlinear Fibre Optics, Supercontinuum Generation,  
Ultrafast Photonics and Applications**

by

**Prof. John Dudley  
University of Franche-Comte, France**

**Date :** 11<sup>th</sup> August 2009 (Tuesday)  
**Time :** 4:30 p.m  
**Place :** Rm 222 Ho Sin Hang Engineering Building, CUHK

### **Abstract**

This talk will review the work of the nonlinear photonics and optoelectronics group at the University of Franche-Comte. The group carries out research in a wide range of areas, with two key aspects of the research philosophy being the tight integration between theory and experiment and an insistence on both fundamental and applied research. Amongst the topics that have seen significant recent progress are: nonlinear fibre optics and supercontinuum generation; optical fibre self-similarity and applications; ultrafast source development; ultrafast pulse measurement techniques; novel pulse compression technologies; nonlinear dynamics and physical layer security using chaos; integrated optics approach to quantum key distribution; optoelectronic oscillators; femtosecond pulse machining at the nanometric scale. A selection of topics will be highlighted depending on audience interests.

### **About the Author**

Originally from South Auckland in New Zealand, 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-Comte in Besancon, France, where he heads the Optoelectronics and Photonics research section of the CNRS research institute FEMTO-ST. He was named a member of the Institut Universitaire de France in 2005 and elected a Fellow of the Optical Society of America in 2007. He is an IEEE LEOS Distinguished Lecturer for the period 2008-2010, a Member of the International Council on Quantum Electronics, and he currently chairs the board of the Quantum Electronics and Optics Division of the European Physical Society.

**\*\*\* All are welcome to attend \*\*\***

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