

## **PROF. PADDY REGAN - BIOGRAPHY**

Prof. Paddy Regan holds the NPL Chair in Radionuclide Metrology at the University of Surrey, UK. He joined the academic staff in the Physics Department at Surrey in 1994 as a lecturer after holding postdoctoral research positions at the University of Pennsylvania, USA and the Australian National University in Canberra. He was subsequently promoted to a full Professorship in Experimental Nuclear Physics in 2009. Since 2013, he has held the NPL-Surrey Chair in Radionuclide Metrology and is part-based within the Nuclear Metrology Group at the National Physical Laboratory (NPL) where he is the Science Area Leader. He has co-authored more than 300 peer-reviewed scientific papers on nuclear physics and radiation detection research and given more than 100 invited international conference and workshop presentations. Paddy has led experimental nuclear physics experiments at laboratories in the UK, Denmark, Australia, Canada, South Africa, France, Germany, Italy, Romania, Japan and the USA. He has been the spokesperson for a number of international programs to study the internal structure of new, radioactive isotopes, including investigations into the variation of nuclear shapes and internal structural competitions as a function of angular momentum. He has successfully supervised more than 40 doctoral research students in topics including fundamental nuclear structure physics of the decays of exotic nuclei; signatures of evolution from nuclear vibrational to rotational collective modes; the measurement of electromagnetic transition rates between nuclear excited states to probe the nature of nuclear deformation; the origin of high-angular momentum states in odd-odd nuclei with limited valence space; total absorption decay spectrometry and nuclear fission waste decay data; radiation detection system design and commissioning; radiation dosimetry and radiobiological effects; environmental radioactivity; and the provision of radiological and radiopharmaceutical standards and reference materials for environmental source measurements.

