Resume of Professor Peter Twin's Career

Peter Twin was educated at the University of Liverpool and he received his B.Sc. in 1960 and his Ph.D in 1964. He was appointed Lecturer at Liverpool in 1964, Senior Lecturer in 1973 and Reader in 1979. In 1968-1969 he was a visiting professor at the University of Alberta, Canada. From 1983-1987 he was Head of the Nuclear Structure Facility at the Daresbury Laboratory. In 1987 he was appointed Professor of Experimental Physics at the University of Liverpool. In 2001 he became a Senior Fellow and Professor Emeritus.

His research into the structure of nuclei has been based on techniques of gamma ray spectroscopy. He was involved in early experiments using germanium crystals, the development of active suppression shields using initially sodium iodide crystals and then the denser material bismuth germanate. He developed both multi-detector and planar detector germanium systems to measure the linear polarisation of gamma rays. This instrumentation was used from 1964-1980 on the Liverpool 6MV tandem accelerator to elucidate nuclear structure information in light and medium mass nuclei.

In 1980, at the Neils Bohr Institute at Riso, Peter Twin and Bent Herskind brought together their equipment to build the first multi-detector array of escape-suppressed gamma ray spectrometers, which demonstrated the power of such a system. Peter Twin then led the team that built the 6 detector TESSA2 spectrometer at Daresbury in 1983 and the 16 detector TESSA3 spectrometer in 1986. This instrument was immediately successful when the first sequence of discrete gamma rays from superdeformed states was observed in ^{152}Dy. This observation launched the study of superdeformation in nuclei, a topic which has remained the focus of Peter Twin's research. The next development in gamma ray arrays was a joint UK/ France collaboration (led by Peter Twin and Francis Beck) which built Eurogam 2 at Daresbury in 1992 and Eurogam 3 at Strasbourg in 1994. These arrays were the initial phase of a european-wide collaboration which culminated in the construction of Euroball 3 in 1996.

In 1991 Peter Twin was awarded the Tom Bonner Prize of the American Physical Society, the John Price Wetherill Medal of the Benjamin Franklin Institute, USA and awarded an OBE. In 1993 he was elected to a Fellowship of the Royal Society and in 1996 he received an Honorary Degree from the University of Jyvaskyla, Finland.