

Are human activities causing climate change and how damaging will the impacts be?

Sir Nevill Mott Public Lecture presented by Sir John Houghton

**Wednesday 14th March 2012, 5.15pm – 6.15pm,
Lecture Room T003**

From the burning of fossil fuels, coal, oil and gas, over 30 billion tonnes a year of carbon dioxide are emitted into the atmosphere. This is increasing the 'greenhouse effect' a scientific principle known for over 200 years, resulting in increased average temperature at the earth's surface. Intense scientific study of all parts of the climate system over the past 30 years has provided strong evidence of a resulting rate of change of climate greater than for many thousands of years bringing serious impacts on human communities and ecosystems. Many co-benefits will accrue from actions taken to reverse the current trends. The need for urgency is inescapable.

John Houghton CBE, FRS was born in 1931 in Dyserth, Clwyd, educated at Rhyl Grammar School and Jesus College, Oxford. After a short period at the Royal Aircraft Establishment, he returned to Oxford in 1958 as Lecturer, Reader (1962) and Professor (1976) of Atmospheric Physics, where he became involved in novel instrumentation for observing the Earth's atmosphere from space. In 1983, he moved to become Director General (later Chief Executive) of the Meteorological Office. In 1988, on the formation of the Intergovernmental Panel on Climate Change (IPCC), he was appointed chairman of its Scientific Assessment – a position he held until 2002. After retiring from the Met Office in 1991, he became chairman of the Royal Commission on Environmental Pollution (1992-8) and a Trustee of the Shell Foundation (2000-10). He is currently President of the John Ray Initiative. His many awards include the Japan Prize (2006), Albert Einstein Award of the World Cultural Council (2009), International Meteorological Organisation Prize (1998), gold medals from the Royal Astronomical Society and the Royal Meteorological Society, honorary doctorates from 13 Universities including Oxford, Wales and Dalhousie, Canada and a share in the Nobel Peace Prize awarded to the IPCC in 2008. His books include *The Physics of Atmospheres* (3rd edition 2003), *Global Warming: the Complete Briefing* (4th edition 2009), and *The search for God: can science help*.

This prestigious seventeenth Sir Nevill Mott Lecture will be hosted by the Department of Physics, Loughborough University.

A free public lecture. All welcome, although an understanding of physics principles up to 'A' level physics is recommended. No booking or tickets required.

Lecture Room T003 can be found in the Wolfson School of Mechanical and Manufacturing Engineering on the West Park area of the Loughborough University campus. Search for Wolfson Building on the map at <http://maps.lboro.ac.uk/>

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