

# Climate change

**Professor Joanna Haigh**



7.30 p.m 17<sup>th</sup> February, 2016  
Main Lecture Theatre, (3.25)  
John Anderson Building  
University of Strathclyde

## **Biography**

Joanna is co-Director of the Grantham Institute (Climate Change and the Environment) at Imperial College London and recent past-President of the Royal Meteorological Society. She has published widely on climate physics and her work on how changes in solar activity may influence climate has been particularly influential. <http://www.imperial.ac.uk/people/j.haigh>

## **Abstract**

Over the industrial period the surface temperature of the Earth has increased by nearly 1°C and climate scientists are overwhelmingly of the opinion that this largely results from the emission of gases into the atmosphere by human activities.

How can we be sure that this is the case? Does it matter? What can we say about the future?

In this talk Professor Haigh will outline the evidence for climate change - in temperature and other measures, globally and regionally - what is well known and what less certain.

She will describe how the climate reflects a delicate balance between the energy coming in from the Sun and the heat energy leaving the planet for space, and how this can be disrupted by increasing concentrations of “greenhouse gases”, especially carbon dioxide (CO<sub>2</sub>). She will show how basic physics can be used to construct computer models of the climate which can then be employed to investigate how climate processes work and what increasing CO<sub>2</sub> may mean for the future.

The talk will conclude with a discussion around different approaches to tackling climate change and where the world is heading following the United Nations climate change negotiations in Paris in Nov/Dec 2015.

<http://www.royalphil.org>