# The History of Climate Modelling

The Royal Society of Chemistry, London

**Wednesday 4 December 2024, 13:00 – 17:30**


## Abstract

Climate models have been central in journey of climate change from a scientific curiosity to the leading global geopolitical issue - from understanding and simulating basic climate processes, to detection and attribution, through to predictions and projections. This meeting will look at the history of climate modelling from the early models developed in the Met Office through atmosphere-only, coupled models, inclusion of Earth systems processes including chemistry and the carbon cycle, operational long-range predictions and projections and model intercomparison projections. The meeting will also cover the future of climate modelling including machine learning and Artificial intelligence. A panel discussion at the end of the meeting will provide an opportunity to discuss how the past can inform the future development and use of climate models.


Meeting Organiser: Mat Collins

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| **13:00** | **Registration & Refreshments** | |
| **13:20** | **Welcome & Introduction** | Mat Collins FRMetS, University of Exeter |
| **13:25** | **Early Climate Models** | Julia Slingo FRMetS |
| **13:50** | **History of the Hadley Centre Climate Models** | Richard Wood FRMetS, Met Office |
| **14:15** | **Development of Earth System Models** | Peter Cox, University of Exeter |
| **14:40** | **Refreshment Break** | |
| **15:00** | **Initialized Climate Predictions: Seasonal, Decadal and Beyond** | Magdalena Balmaseda, ECMWF |
| **15:25** | **The Evolution of CMIP** | Elisabeth Dingley, ESA and Helene Hewitt, Met Office |
| **15:50** | **Machine Learning Models** | Mat Chantry, ECMWF |
| **16:25** | **Panel Discussion – The Future of Climate Modelling** | All Speakers |
| **16:55** | **Meeting Close** | |

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