

Climate modeling and prediction : scales of confidence

Centre Alexandre Koyré, Paris

Thursday 11th and Friday 12th October 2012

A meeting of the DFG network « Atmosphere & Algorithmes »

With ANR project « ClimaConf »

Thursday 11 october

2.00 – 6.00 pm Centre A. Koyré, 27 rue Damesme, 75013 Paris

Public workshop

- *New developments and approaches for the representation of cloud and convection processes in climate models*

Frédéric Hourdin and Jean-Yves Grandpeix (LMD- IPSL)

- *Understanding climate processes through a hierarchy of models*

Sandrine Bony and Jean-Louis Dufresne (LMD-IPSL)

- *Scaling up: space, code, trust, and the organization of climate modeling work*

Paul Edwards (University of Michigan – Sciences Po)

Friday 12 october

10.00 - 12.30 am - Centre A. Koyré

Public workshop

- *The construction of climate change as a public problem in Germany and France : the role of expertise*

Stefan Aykut (IFRIS, LATTS)

- *Cultures of prediction : Towards an understanding of the hegemony of climate models*

Matthias Heymann (Aarhus University)

12.30 – 2.00 pm - Lunch

2.00 – 4.00 pm

Internal meeting

- Discussion on the book project and further cooperation

Atmosphere & Algorithms

Scientific Network funded by the DFG German Research Community (2010-2012)

<http://www.geisteswissenschaften.fu-berlin.de/en/v/atmosphere-algorithms/>

The DFG Scientific Network “Atmosphere & Algorithms“ brings together researchers from history and philosophy of atmospheric science with researchers from atmospheric science. Since forecasting algorithms have increasingly gained ground in meteorology in the 1950s and since the Charney Report posed the question of climate sensitivity in 1979, modelling has paved the way of meteorology to climate change science and policy. The goal of the network is to discuss the ongoing developments in atmospheric science (weather and climate science) due to the use of computers and algorithms and to link them with historical developments. It aims to support scientific exchange of ideas as well as conjoint publications and research activities amongst the participants.

Centre Alexandre Koyré

The 50-year-old Alexandre Koyré Research Centre (UMR 8560) boasts a rich tradition of research in the history of science and technology. Currently, it is composed of nearly one hundred researchers, teacher/researchers, post-doctoral and doctoral students focusing their research mainly on the modern and contemporary periods. Their work could be categorized as “The study and history of scholarly cultures”; investigating local cultural practices and the sharing, communication and dissemination of knowledge. These activities concern the following themes: science in the public domain; circulation as a means of producing knowledge (taking into account the different scales of this circulation: urban, national, regional, European and worldwide); corpora and archives of the history of science; environment, climate and sustainable development; the history of biodiversity; actors, institutions and governance. These issues, though not confined to the specificities of a particular discipline, fall within the history of mathematics, physics, chemistry, medicine, biology, as well as natural history and human sciences.

Under the supervision of the École des Hautes Études en Sciences Sociales (EHESS), the Centre trains master’s and PhD students in research through research. A wide variety of national and international seminars and symposia are held under the aegis of the Centre. The Centre also has an extensive library dealing with the history and sociology of science and technology.

« ClimaConf »

The question of confidence in global warming : climate modeling, expertise and relationship with politics

Scientific project funded by the Agence Nationale pour la Recherche (ANR) (2011-2013)

This project aims to investigate the issue of confidence in global warming by identifying the criteria and the conditions of its construction, and by better understanding the link between the different levels of confidence involved. The project gathers two teams of researchers, one of climate scientists from the Laboratoire de Météorologie Dynamique (LMD-IPSL) working on climate modeling and climate change studies and assessments, and another from social science scientists from the Centre Alexandre Koyré (center for history of sciences, EHESS). We will address the question of confidence at different levels: the confidence that climate scientists express themselves about their working process, their models and their simulations; the mutual confidence between climate scientists and other scientists; the confidence between science and policy-makers regarding expertise and its assessments.