

PhD

STEPCHANGE
seminar series

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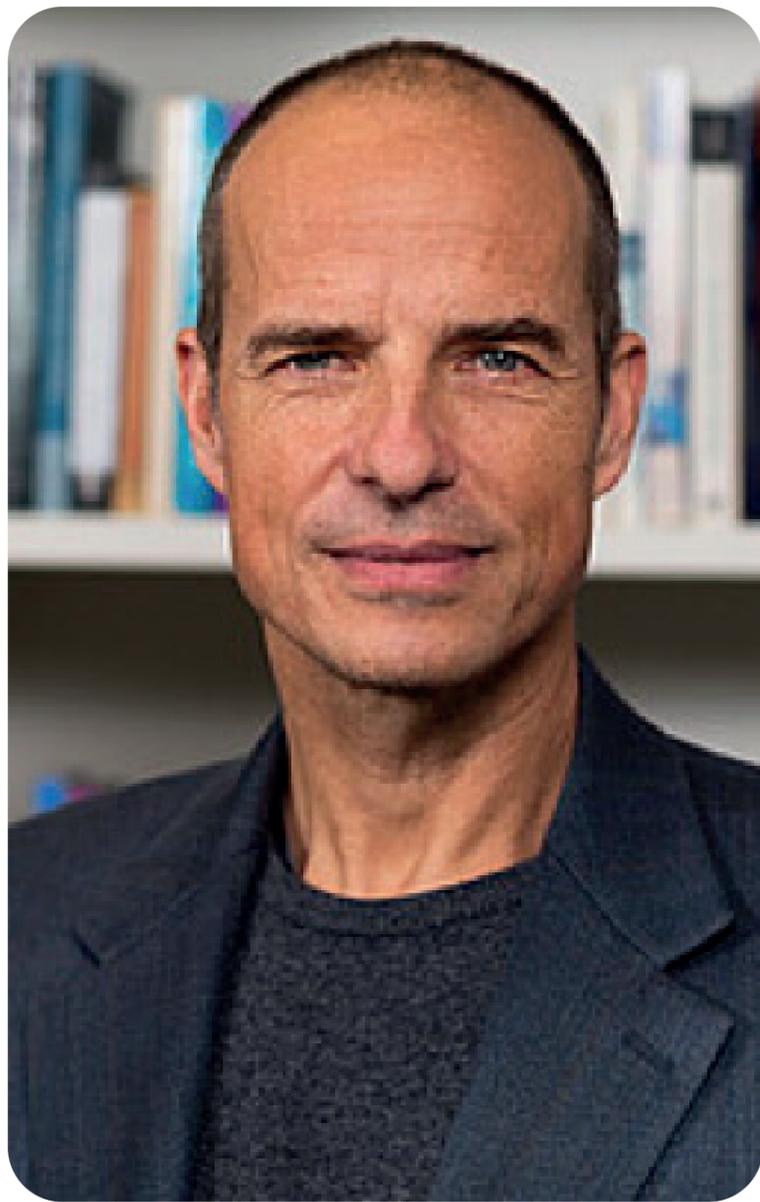
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SOCIAL SCIENCES AND HUMANITIES
FOR SCIENCE AND TECHNOLOGY

lecture

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Full Professor at the
Leibniz Universität
Hannover



ABSTRACT

Despite the great progress that climate science and our understanding of the climate system have made in the last three decades, significant uncertainties in our knowledge of the climate system and future climate change remain. In this talk I will focus on estimates for one climate variable, the equilibrium climate sensitivity (ECS), and examine how uncertainties in its estimates are treated in the most recent IPCC report AR6. AR6 supplements a framework of probability intervals (adopted from earlier reports) by in addition considering low-likelihood but high-impact “storylines”. I will argue in this paper that including such storylines represents an important improvement compared to prior reports. More specifically, I will argue that (i) in light of the deep uncertainties plaguing estimates of the values of central climate variables seemingly probabilistic assessments of these quantities ought to be read in a coarse-grained way and interpreted within a possibilistic framework as statements of ranked possibilities; (ii) given the high stakes involved, an appropriate decision framework for climate policy decisions ought to include broadly precautionary considerations that are sensitive to high-impact and catastrophic climate futures; (iii) storylines are a useful tool for probing possible high-impact climate futures.

MANAGING UNCERTAINTIES IN THE EQUILIBRIUM CLIMATE SENSITIVITY



Event date:
April 19, 2023

Time:
04:00 pm

Location:
DMAT - building 14
seventh floor

Room:
Sala Consiglio

BIOGRAPHY

Mathias Frisch studied philosophy and physics at the Ludwig-Maximilians-Universität (LMU) in Munich and the University of California in Berkeley, where he completed his PhD (1998) on the role of models in scientific explanation. He was an assistant professor at Northwestern University from 1998-2003. From 2003-2015 he was employed by the University of Maryland, becoming a “full professor” in autumn of 2013. He has been a research associate at the Centre for the Philosophy of the Natural and Social Sciences at the London School of Economics since 2008. Mathias Frisch has been the Professor for Theoretical Philosophy, in particular philosophy of science, at the Leibniz University Hannover since February 2016.

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