Confirmation of Climate Models

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Abstract

By critically appraising the logical positivist theory of confirmation and the philosophical accounts for climate simulation models, this paper investigates the issues of model confirmation in the contexts of scientific practice of climate study. The epistemic merits of simulation models, which are regarded as fictions due to the idealization in the model building process, are to serve as heuristic tools the model users use to achieve a certain purposes. In climate sciences, models are thus evaluated according to whether or not they are adequate for the purposes of empirical examinations.

Key Words: climate change, scientific models, climate simulation models, confirmation, uncertainty