



What do we know about climate sensitivity?

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The equilibrium climate response to anthropogenic forcing has long been one of the dominant, and therefore most intensively studied, uncertainties in predicting future climate change. As a result, many probabilistic estimates of the climate sensitivity have been presented, mostly converging on an answer in the region of 3C. Here we survey some recent progress in this area, and suggest that future progress can be made by bringing together information from recent and paleo climates. We also examine limitations due to state-dependence, disequilibrium and nonlinearity in the climate response to external forcing which limits our ability to confidently infer future changes from historical data.