



Can we believe in high climate sensitivity?

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Many observationally-based estimates of climate sensitivity (S) have been presented in recent years, with most of them assigning significant probability to extremely high sensitivity, such as $P(S > 6C) > 5\%$. There appears to be widespread disagreement about whether these estimates are credible, and even whether such probabilistic analyses should be intended to be credible. We argue here that if the estimates are intended to support economic and policy analyses then it is essential that they represent the beliefs of the researchers. We discuss the implicit assumptions that underly many estimates. We present an alternative analysis which support a much greater confidence in a moderate value for S ($\sim 2.5C$).