

# **The Cosmic Ray Climate Link on Various Different Time Scales**

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We review the expected role of the cosmic ray climate link on different time scales. We show that while it is dominant over some scales, it is only expected to be secondary over others. We then continue with an estimate of the climate sensitivity to changes in the radiative budget, based on empirical comparison between reconstructed changes in the global temperature and radiative budget over the different time scales. We find that if the radiative contribution associated with the changing cosmic ray flux is properly accounted for, the estimated sensitivities over the different time scales, ranging from the 11-year solar cycle to 550 Myrs, all converge to the same sensitivity, one which is close to that of a black body Earth.