

Interactive comment on “Statistical issues about solar-climate relations” by P. Yiou et al.

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I found this article a clear rebuttal of one of the many solar-terrestrial claims. One aspect that is not mentioned explicitly is the issue of test multiplicity. A few times it is remarked that there is no reason to look for a correlation between various quantities, but I think the article would be strengthened by explicitly stating that if there is no reason to suspect a relationship one should demand much lower p -values than if a physical pathway is known or at least plausible so that only a single test is performed. A p -value of 0.1 may be reasonable to confirm a hypothesis based on a physical connection, whereas a p -value of 10^{-4} or smaller may be needed when looking for hundreds of possible correlations at random.

Interactive comment on Clim. Past Discuss., 6, 461, 2010.