



How long is causal information being transferred from North Atlantic to Central Europe?

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Inference of causal relations from time series is a challenging problem. Besides the existence of a causal link from one system to another, one can ask what is the time delay in which the effect follows the cause. We will discuss different methods proposed for the detection of the coupling delay, or, the information transfer delay. We will focus on the possible causal influence of the North Atlantic Oscillation on air temperature and investigate whether such a causal relation or information transfer can be reliably detected together with its time delay, considering also the influence of seasons and different time scales involved.