

Abstract Submitted  
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**The Immediate Affect of Information in a Delayed Choice on a Distant Distribution as Seen in Different Inertial Reference Frames: The “Effect” May Occur Before the “Cause”** DOUGLAS SNYDER, None — An experiment is described in the laboratory reference frame that relies on delayed choices for idler photons that immediately affects the distribution of signal photons with which the idler photons are initially entangled. The delayed choices on the idler photons concern whether to maintain or instead eliminate the entanglement between the paired idler and signal photons before any measurements are made. Eliminating the entanglement is done through eliminating the which-way information carried by the idler photon. If the entanglement is maintained, the result is which-way information in the distribution of the signal photons. If the entanglement is instead eliminated, the result is the elimination of which-way information and the presence of interference in the distribution of the signal photons. In other inertial reference frames, the change in state in the signal photon may occur before the delayed choice on the paired idler photon is made. A Minkowski diagram depicts the situation for the laboratory reference frame and another inertial reference frame where the change in state in the signal photon occurs before the delayed choice on the paired idler photon.

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None

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