Abstract Submitted
for the APR21 Meeting of
The American Physical Society

How to Lead to the Demise of Schrodinger's Cat from a Distance with Spooky Action at a Distance and Spooky Action Not at a Distance: Three Null (Negative) Measurements and Information Transfer Faster than the Speed of Light, A Lot of Knowledge and No Measurements with Physical Interactions DOUGLAS SNYDER, None — This presentation shows just how far one can go in affecting the physical world without any measurements involving physical interactions (positive measurements). A null measurement that does not rely on a physical interaction is used to first measure one of two entangled electrons (electron 1). Information is instantaneously transferred (spooky action at a distance) upon the measurement of electron 1 to electron 2 for which there is also a null measurement. Both of these measurements and the instantaneous transmission of information involve knowledge. A third null measurement then leads to the demise of Schrodinger's cat. With a null measurement on electron 1, Bohr's defense of quantum mechanics is irrelevant: It is not necessary that there be a physical interaction between electron 1 and a physical measuring instrument that is fundamental to Bohr's version of complementarity for physics in order for the null measurement on electron 1 to affect electron 2. For Einstein, Podolsky, and Rosen, how can one argue for local hidden physical variables involved in measurement of electron 2 when there are no overt physical variables involved in a physical interaction in the null measurement on electron 1?

Douglas Snyder
None

Date submitted: 07 Dec 2020 Electronic form version 1.4