

**Double Slit Quantum Eraser – a New Experiment**

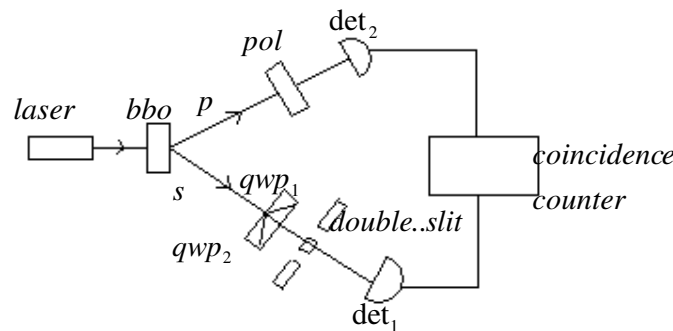
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Orthodox experiment: two entangled photons, s and p, are produced at a beta-barium borate crystal by spontaneous parametric down conversion. The s photon passes by a which-way marker, two quarter-wave plates, and to a double slit. Then it goes to the detector det1.

The p photon passes to a linear polarizer and goes to the detector det2. The coincidence counter registers the event.

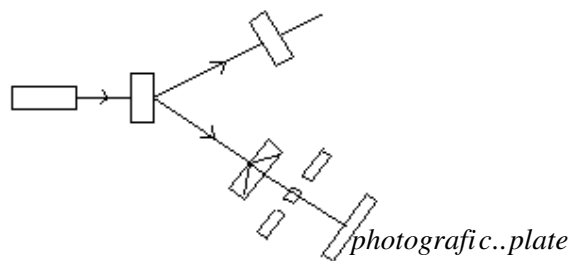
According to the orthodox explanation we get a image of interference because the linear polarizer erases the which-way knowledge, even if the photon p enters the polarizer after the photon s passes the double slit.



We think that the result is due to time variations at the detectors because of the polarizer.

But there's a way of proving that:

If the orthodox explanation is true we must get the same result with another experiment.



If there's an instantaneous or from the future communication between the photons we should get a interference picture.

We think that the result would be no interference.