

Abstract Submitted
for the 4CF11 Meeting of
The American Physical Society

There may be a CPT violation at a Horizon that could affect Particle Creation RICHARD KRISKE, University of Minnesota — Relativistic Physics has three observers when viewed in Quantum Mechanics. A Photon carries information in a clock mechanism according to QED, which can be viewed as a third observer and as an internal, hidden variable. In QED, the clock mechanism is used to determine the phase, perhaps the clock has more than one hand, say a second hand and a minute hand. The second hand keeps track of Phase, but the minute hand keeps track of the time normal at the point the Photon was created. If the Photon was created near the horizon of the Universe, even if it were a high frequency, Blue Photon, in Observer 1s frame of reference, it would be a Red Photon in Observer 2s frame of reference, far from the Horizon. In flat space two Observers will work, in that they both view Space-Time. If space is curved, there is a problem, in that like the Earth's two dim. surface reduces to a one dimensional line, the Universes three dim. surface gives a two dimensional surface, with a force outward in every direction. At the Horizon the Space-Time symmetry is broken into Space and Time, with the Past being seen in every direction outward. This one direction for Time at the Horizon breaks CPT and could be responsible for the Electroweak Force, and would most certainly produce a Gauge Field everywhere in the Universe, that could be the Higgs Mechanism. Black Hole Horizons may be similar and Photons tunneling out of them would have mass.

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Date submitted: 13 Sep 2011

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