Abstract Submitted for the NEF11 Meeting of The American Physical Society

The Horizon of the Universe could be the source of the Electroweak Force RICHARD KRISKE, University of Minnesota — In Physics the problem of observers and observed plays a central role. A Blue Photon in is created, in one observers reference frame, that is far from another observer, at the Horizon of the his reference frame, when it reaches him it is a red photon, because there is a third observer present and that is the photon itself. The photon carries information with itself in its travels, as to where the time-normal was where it was created. If one agrees that the time normal points away from the observer at the Horizon, photons coming from there are red shifted, this is true of Black Hole Horizons as well. What about photons coming from over the Horizon? They go to radio frequency, but then are Blue Shifted using the same paradigm. The only way to Blue Shift a photon in this way is to give it mass and all of the trappings of mass, like charge. This is a particular type of Blue Shifting where the time vector points in an unusual direction. This CPT violation is commonly seen in the Electroweak Force, as at the Horizon the time vector only points out, away from the observer and is no longer part of 4 dimensional space-time. This symmetry breaking at the Horizon causes the Electromagnetic Force to become the Electroweak Force, and a Gauge is establish that is easily recognized. Using this idea a General Procedure for the Construction of Matter from Energy can be written. The easier parts are seen in a slightly curved environment like the Sun.

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