[2007-09-10, 08:17 Mon] – Virtual particles and time

Addendum: Virtual particle pair production would in effect "convey" spontaneous time-orientation selection throughout space, creating the spacetime fabric we are familiar with. Any virtual pair that tried to form with the "wrong" orientation in time would encounter a huge energy barrier, even within empty space, due to the conveyed time orientation consensus of other nearby virtual particles. However, the availability of such "wrong time orientation" particle pair production options should nonetheless alter the total vacuum energy profile, hopefully (very likely, actually) in a way that would be experimentally measurable.

This same virtual-particle pressure would also virtually (heh!) guarantee that in special-relativity-only situations, the time orientation of all participating real and virtual particles will be the same, even (especially, actually) at very fine scales. My earlier speculations about variant-time directions for info-isolated quantum systems would not be allowed; the virtual-particle continuum would ensure time-direction continuity even within such an info vacuum. Reversed causality events, ironically, might still be allowed within the vacuum, still giving the appearance (without any true causality conflict) of backwards-propagating events.

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Terry Bollinger 2007-09-10.08:34 Mon