

Re: Analog or Digital

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From: Old Man (*nomail_at_nomail.net*)

Date: 07/30/04

Date: Fri, 30 Jul 2004 18:53:21 -0500

"Tom Potter" <tdp@earthlink.net> wrote in message
news:2mv83kFrb9ppU1@uni-berlin.de...

>

> "Uncle Al" <UncleAl0@hate.spam.net> wrote in message

> news:41096AC1.E0F6EF82@hate.spam.net...

>> Sina Tootonian wrote:

>>>

>>> Hello everyone,

>>>

>>> I'm not sure if this is the correct newsgroup for my question, so if

>>> it is not, please let me know.

>>>

>>> I've read a lot of talk about whether the universe is fundamentally

>>> analog or digital, but this seems like a moot point to me: the

>>> universe is digital, or more accurately, discrete. We may be able to

>>> calculate pi to as many digits as required, but in nature it is

>>> truncated to a certain size. Energy is quantized. In light of this,

>>> I don't really understand the argument that digital systems cannot

>>> perfectly emulate analog systems in practice.

>>>

>>> Any light that you can shed on this issue would be greatly

>>> appreciated.

>>

>> Discretize gravitation in a manner that allows falsifiable

>> prediction. No quantum theory of gravitation is predictive. No

>> predictive theory of gravitation is quantized.

>

> 1. Reality consists of events, which are discrete.

> An event happens or does not happen.

Potter's mind is filled to capacity with fantasy. There isn't any room left for physics. Filled or not, capability is lacking in any case.

Stupid Potter. What's quantized in Compton scattering (photon-electron scattering) ? Neither scattering angle nor energy transfer are quantized. The angular distribution is

a smooth function of scattering angle. The cross section is a smooth function of photon energy.

"Quantum Electrodynamics" Landau & Lifshitz
ISBN 0 7506 3371 9

Stupid Potter. Explain how Compton scattering either "happens" or doesn't "happen".

[Old Man]

- > 2. *Energy is *not* quanta.*
- > *"Action" is the quanta of change.*
- >
- > *An integer number of "action" quanta*
- > *are involved in every cause and every effect.*
- >
- > *The amount of energy involved in a quantum of "action"*
- > *is a function of the relative velocity between the*
- > *cause and the effect.*
- >
- > 3. *To my knowledge, there is NO mechanism*
- > *in either Q.M. or G.R. to account for the*
- > *"Uncertainty Principle".*
- >
- > *In other words, neither will account for*
- > *"Butterfly Effects" or conscious actions.*
- >
- > --
- > Tom Potter <http://home.earthlink.net/~tdp>
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