

Re: Photon, Momentum, Mass

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John Kennaugh wrote:

Put simply if the speed of light is not dependent on the physical processes taking place in the source then what physical process is it dependent upon?

As I keep saying, you need to re-examine your premises and assumptions. It is clear to me you have an enormous amount of "philosophical" baggage, most of it unacknowledged by you, and much of it wrong (i.e. inconsistent with modern physics, both theory and experiment).

Ask yourself this: what "physical process" keeps the light moving in a straight line?

[Don't say "conservation of momentum", because that is not "physical" (your word, not mine).]

The answer in modern physics is, of course: this is not a "physical process", it is a geometrical aspect of the way light behaves. And indeed, the constancy of the speed of light is likewise geometrical.

Indeed, conservation of momentum is geometrical, too. C.f. Noether's theorem....

Tom Roberts

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