

Abstract Submitted  
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**A Transluminal Energy Quantum Model of the Cosmic Quantum**

RICHARD GAUTHIER<sup>1</sup>, Santa Rosa Junior College — An internally transluminal model of the hypothetical cosmic quantum or ‘primeval atom’ of the very early universe is proposed. It is a single-quantum closed-loop photon model that has the total mass-energy of the ordinary matter and dark matter of our observable universe. This gives the cosmic quantum model a calculated mass, radius, frequency, wavelength, period and energy density. The closed-loop photon model consists of a rapidly circulating point-like transluminal energy quantum (TEQ). The TEQ circulates in a closed helical path with a maximum speed of  $\sqrt{5}c$  and a minimum speed of  $c$  around the closed-loop photon model’s one-wavelength circular axis. The TEQ closed-loop photon model of the cosmic quantum is a spin-1 boson, while a related TEQ double-looping closed photon model is a spin 1/2 fermion. The TEQ closed photon models may shed light on several fundamental and related issues in cosmology. These are: the possible nature of the cosmic quantum, the predominance of matter over antimatter in our universe, possible spin 1 and spin 1/2 particles of dark matter, the quantum entanglement of the universe, and the extremely low entropy of the very early universe.

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