

Abstract Submitted
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A Potential Link Between the Cosmological Constant and the Fine-structure Constant SHANTILAL GORADIA, Gravity Research Institute — The age of the universe, about 10^{60} Planck times, makes the spherical radius (R) of its space 10^{60} Planck lengths, as the light moves one Planck length per one Planck time. The fine-structure constant (α) closely equals the natural logarithm of the square root of the reciprocal of the cosmological constant (λ), making $\alpha \approx \ln \sqrt{(1/\lambda)}$, where $\lambda = 1/R^2$ as originally introduced by Einstein in equation number (14) in his 1917 paper: *Cosmological Considerations on the General Theory of Relativity*. This confirms the time-dependent variation of fine-structure constant in [1], but does not address the issue of dark energy. While [1] invokes negative entropy ($-Q/T$), so it also invokes dark energy simply. The problem still remains that no theory, as yet, combines the probabilistic aspect of quantum mechanics with gravity. In the meanwhile, we can link [1] with the quantum information theory as information links to entropy. [1] Goradia S. Preprint at (<http://www.arxiv.org/physics/0210040> v3 (Jan 2007)).

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