

# Three characteristic relations of a simple model of quantum cosmology

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**Abstract:** We propose three characteristic relations in developing a simple model of quantum cosmology. We assure the reader that by studying and analyzing them, Lambda cosmology can be refined with ease and clarity.

**Relation-1:** Galactic light travel distances can be fitted with,  $d_G \cong (z/z+1)(c/H_0)$ .

**Relation-2:** Relation between current cosmic temperature and Hubble parameter can be

expressed as,  $T_0 \cong \frac{\hbar c^3}{8\pi k_B G \sqrt{M_{pl} M_0}} \cong \frac{\hbar \sqrt{H_0 H_{pl}}}{4\pi k_B}$  where  $\frac{2GM_0}{c^2} \cong \frac{c}{H_0}$ ,  $M_{pl} \cong \sqrt{\frac{\hbar c}{G}}$  and  $H_{pl} \cong \frac{1}{2} \sqrt{\frac{c^5}{G\hbar}}$ .

**Relation-3:** For any galaxy, virtual dark matter can be estimated as,  $(M_{dark})_G \cong \frac{(M_{baryon})_G^{3/2}}{(4 \times 10^{38})^{1/2}}$  kg

where  $(M_{Ref})_0 \cong 4 \times 10^{38}$  kg = 200 million solar masses can be called as the 'current reference mass unit'.

## References

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**Biography:** U.V.S. Seshavatharam is a mechanical engineer working as an Assistant manager in Quality Assurance department of Electrosteel Castings Ltd, Srikalahasthi, AP, India. He is a honorary member of I-SERVE (Institute for scientific research on Vedas), Hyderabad, Telangana, India. He is having 100+ publications in numerous peer-reviewed physics journals and availing the kind guidance of retired Prof. S. Lakshminarayana associated with Dept. of Nuclear Physics, Andhra University, Visakhapatnam, AP, India. Under the kind guidance of Dr. Eugene Terry Tatum, he is working on 'Flat Space Cosmology' associated with light speed growing black hole universe. His current theoretical interests include Nuclear quantum gravity, Quantum cosmology and Cold nuclear fusion. He is working on developing a theory for preparing Gold- like costly elements with Tungsten- like heavy metals via cold nuclear fusion and converting high level nuclear radioactive waste into stable atomic nuclides. In the field of Information Technology, he is having publications on Virtual Debit/Credit cards, Secured data transactions, Aadhar number based online medical data base for citizens of India and High quality and nominal fee certified online Digital Degree Courses and Cloud & AI technology based control of driver face & hand moments.