



Contribution ID: 193

Type: **Contributed talk in mini symposium**

Alleviating H_0 -tension in T-dual Friedmann cosmologies

Friday, 15 December 2023 09:50 (10 minutes)

With increasing significance, the H_0 -tension between the Local Distance Ladder and Planck Λ CDM-analysis of the CMB points to a new principle of cosmological spacetime. Distinct from conventional extrapolations of general relativity in the Solar system, cosmological spacetime contains heat as a relic of the Big Bang based on Planck scale structures in black hole spacetimes. A path integral formulation produces a system of equations that satisfy T-duality in the Friedmann scale factor - a new symmetry in the Hubble expansion $H(z) \simeq (1+(6/5)\Omega_{M0}[(1+z)^5-1])^{1/2}/(1+z)$. It satisfies $H_0 \simeq 73$ km/s/Mpc, $q_0 \simeq -1$, $\Omega_{M0} \simeq 0.25$ relevant to tensions in (H_0, q_0, S_8) . [Based on van Putten, 2021, Phys. Lett. B, 823, 13637; 2020, MNRAS 491, L6.]

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Session Classification: Cosmology with large-scale structure