



Contribution ID: 129

Type: **not specified**

Cosmological constant problem on the horizon

Tuesday, May 31, 2022 4:00 PM (1h 20m)

We revisit the quantum cosmological constant problem and highlight the important roles played by the dS horizon of zero-point energy. We argue that fields which are light enough to have dS horizons of zero-point energy comparable to the FLRW Hubble radius are the main contributors to dark energy. On the other hand, the zero-point energy of heavy fields develop strong nonlinearities on sub-Hubble scales and can not contribute to dark energy. We speculate how this proposal can solve the old and new cosmological constant problems. We further speculate if the zero-point energy of heavy fields can provide the seeds of dark matter.

Presenter: FIROUZJAH, Hassan (IPM, Tehran)