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Inter-universal entanglement in the multiverse

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Starting from the cyclic models of the parallel universes with different evolution of the fundamental constants and the same geometry I will study the quantum mechanical entanglement problem of the classically separated universes. The basic approach will be based on the third-quantization formalism of quantum cosmology. Some interesting properties of quantum entanglement (entropy and temperature) at the points corresponding to classical singularities and maximum expansion will be discussed.

Ref: K. Marosek et al. MNRAS, 461, 2777 (2016); S.Robles-Perez et al. Phys. Rev. D. 95, 085505 (2017)

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