Contribution ID: 4

## Extra dimensions in strong gravitational field

Thursday 3 October 2024 14:40 (20 minutes)

Studying the effects of an extra compactified spatial dimension on the phase space of massive particles and the photon. We investigate the dispersion relation within the Kaluza-Klein model, in a spherically symmetric, static spacetime. Modifications to the scalar curvature of phase space due to gravity and the scalar field appearing in the model are considered.

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