

Updates on the Cosmological Collider Physics

Thursday 4 July 2019 14:00 (45 minutes)

We review quasi-single field inflation and the cosmological collider physics, emphasizing on recent progress. The cosmological collider is a model-independent way of extracting the mass and spin information of heavy particles at the energy scale of inflation. The same mechanism can also be used as a direct probe of the expansion history of the universe. After the introduction, we survey the recent progress including neutrino physics, particle scanner, superheavy dark matter, tests of particle symmetries and the tension of today's Hubble parameter measurements.

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