

Whispers from the Dark Universe - Particles & Fields in the Gravitational Wave Era

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WHISPERS FROM THE DARK UNIVERSE - PARTICLES & FIELDS IN THE GRAVITATIONAL WAVE ERA

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Gravitational Waves from Low-Scale Cosmic Strings

Wednesday 25 September 2024 16:30 (16 minutes)

In this talk, I will discuss the effect of low cosmic string tensions on the associated stochastic gravitational wave background. I will show that the gravitational wave spectrum is qualitatively different from the one produced by cosmic strings with larger tensions. In fact, it exhibits a very distinct oscillatory feature with dips in the amplitude at multiples of the frequency of the first dip. This feature arises if none of the cosmic string loops chopped off from the long-string network have fully decayed yet. Despite the low tensions, such an SGWB would be measurable in future experiments.

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