10th International Conference on Gravitation and Cosmology: New Horizons and Singularities in Gravity (ICGC 2023)



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Even a tiniest positive cosmological constant has a long tail (Invited Talk)

Friday 8 December 2023 14:15 (30 minutes)

The physics of gravitational waves is well understood for asymptotically flat space-times. Asymptotic flatness presumes a vanishing cosmological constant. However, cosmological observations over the decades have indicated that our universe is undergoing an accelerated expansion, which is most simply modelled by a de Sitter universe or equivalently by a positive cosmological constant. Even a tiniest value of positive cosmological constant profoundly alters the asymptotic structure of space-times, forcing a re-look at the theory of gravitational radiation. We will present an overview of the study of gravitational radiation in the de Sitter universe. We will discuss the progress and state-of-the-art of the subject.

Presenter: HOQUE, Sk Jahanur (BITS Pilani, Hyderabad campus)

Session Classification: Workshop on Classical & Quantum Gravity