Seventeenth Marcel Grossmann Meeting



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Cosmic Infrared Background: the good and the bad and the good

Monday, 8 July 2024 17:00 (30 minutes)

The cosmic infrared background (CIB) is sourced by the dusty star-forming galaxies throughout the Universe and spans a wide range of redshifts. Its measurements are thus a powerful tool to map the star formation at high redshifts and understand the connection between the host dark matter halos with the galaxies residing in them. Also, in synergy with the cosmic microwave background (CMB), the CIB acts as a powerful cosmological probe with applications ranging from constraining primordial non-Gaussianity to dark energy. Finally, despite being an excellent astrophysical and cosmological probe, CIB acts as a foreground for the CMB and line intensity mapping studies. In this talk, I will explore both of these sides and discuss the possibilities of converting the CIB from a foreground to a signal.

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Session Classification: Cosmic backgrounds from radio to far-IR

Track Classification: Cosmic Microwave Background, Cosmological Tensions (CM): Cosmic back-

grounds from radio to far-IR