From Planck to the future of CMB



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Invited talk by Massimiliano Lattanzi (INFN Ferrara) on "Particle and energy composition of the Universe: Neutrinos, Light relics and Dark Matter"

Tuesday, 24 May 2022 14:00 (40 minutes)

The interaction between cosmology and particle physics has always been very fruitful. Cosmological observations provide a powerful mean to test particle physics theories, and to measure the properties of existing particles like neutrinos. At the same time, the solution to two long-standing mysteries in cosmology - the origin of dark matter and dark energy - might lie in physics beyond the standard model of particles. In my talk I will review what we have learned from cosmological observations of the recent past, especially Planck's, on light relics (including neutrinos) and dark matter, and discuss prospects for future experiments.

Session Classification: CMB, Cross-Correlation and Galactic Science