

The cosmic microwave background: a powerful probe of the early universe and large-scale structure

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Abstract:

In these lectures, I will review the physics of the cosmic microwave background (CMB), the relic radiation emitted soon after the beginning of the universe. I will discuss the origin of the CMB anisotropies in temperature and polarization and outline how cosmological parameters can be inferred from the CMB power spectrum. I will also discuss the new field of CMB gravitational lensing: using the CMB as a cosmic backlight to study the large-scale structure of the universe.



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