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Requirements for future CMB satellite missions: photometric and band-pass response calibration

Tuesday, 1 December 2020 10:55 (25 minutes)

Future experiments, like the LiteBIRD space-borne mission, aim at measuring the CMB B-mode signal with high accuracy in order to measure the tensor-to-scalar ratio r at the 10^{−3} level. I will present a study of the photometric calibration and bandpass resolution requirements to minimize the leakage of polarized Galactic foreground signals into CMB polarization maps for a multi-frequency CMB experiment. I will show results for the LiteBIRD case and discuss them. Furthermore, following the Planck experience with CO line contamination, I will present an analysis to forecast this effect in LiteBIRD data, and eventually define mitigation strategies.

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