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The LiteBIRD mission

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The LiteBIRD satellite (Lite satellite for the study of B-mode polarization and Inflation from cosmic background Radiation Detection) will perform the final measurement of the Cosmic Microwave Background polarization anisotropies on large and intermediate angular scales. Its sensitivity and the wide frequency coverage in 15 bands will allow an unprecedented accuracy in the measurement and foreground cleaning of the signal in B-mode polarization and a cosmic variance limited measurement of the E-mode polarization. Such measurements will have deep implications for cosmology and fundamental physics. The determination of the energy scale of inflation and the constraints on its dynamics from the B-mode polarization will shed light on one of the most important phases of the Universe history and the fundamental physics it implies. LiteBIRD measurements will deepen our knowledge of reionization allowing to reduce the largest uncertainty in standard cosmology after-Planck and will allow to explore some of the main targets of cosmology as large scale anomalies, parity violating phenomena as the cosmic birefringence, the magnetism in the early Universe, etc. I will describe the LiteBIRD mission and detail its expected scientific outcomes.

In-person participation

Yes

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