

MoBiKID - Kinetic Inductance Detectors for upcoming B-mode satellite missions

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Our comprehension of the dawn of universe grew incredibly during last years, pointing to the existence of the cosmic inflation. The primordial B-mode polarization of the Cosmic Microwave Background (CMB) represents a unique probe to confirm this hypothesis. The detection of such small perturbations of the CMB is a challenge that will be faced in the near future by a new dedicated satellite mission.

MoBiKID is a new project, funded by INFN, to develop an array of Kinetic Inductance Detectors able to match the requirements of a next-generation experiment.

The detectors will feature a Noise Equivalent Power better than $5 \text{ aW/Hz}^{0.5}$ and will be designed to minimize the background induced by cosmic rays, which could be the main limit to the sensitivity.

I will present the current status of detectors development and the next planned steps to reach the goal of this project.

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