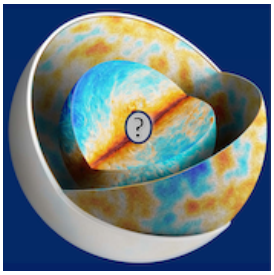

ID de Contribution: **37** Type: **Non spécifié**

KAIROS

mardi 14 octobre 2025 16:50 (20 minutes)

The proposal to build a high-frequency Small Aperture Telescope (SAT) as a new component of the Simons Observatory has gained increasing momentum over the recent years. This initiative, named KAIROS, is under evaluation for funding through the CNRS RI² program ("Recherche à risque et à impact"), with the backing of three CNRS institutes: IN2P3, INSU, and INP.

KAIROS aims to deploy a focal plane of approximately 30,000 LEKID detectors, covering two polarization-sensitive frequency bands above 200GHz. The French collaboration will take responsibility for the full development of all instrumental subsystems.

By extending the Simons Observatory's frequency coverage into the high-frequency regime, KAIROS will significantly enhance our ability to map the polarized emission from interstellar dust, one of the main foregrounds obscuring the primordial CMB B-mode signal. This improved characterization of galactic dust contamination is essential for pushing the limits of inflationary cosmology.

We will present an overview of the proposed instrument concept and its anticipated scientific impact within the broader Simons Observatory framework.

Auteur: Dr ERRARD, Josquin (APC / CNRS)

Orateur: Dr ERRARD, Josquin (APC / CNRS)

Classification de Session: Future missions