

# Q-U Bolometric Interferometer for Cosmology

## Newsletter

31 January 2025

### A new way to communicate the work in QUBIC Collaboration

by The Outreach Group

QUBIC is a cosmology experiment that aims to measure the polarization of cosmic microwave background radiation (CMB) with great precision.

This study would offer us an invaluable insight into what happened immediately after the Big Bang; for example, it would allow us to test inflation theories that claim that there was an extremely rapid exponential expansion during the first  $10^{-38}$  seconds of the Universe, an extremely small fraction of time.

The very weak polarized signal of the CMB requires even more complex and sensitive experiments than those developed so far, in order to detect it. To face this challenge, the Collaboration in the QUBIC Project has developed a completely new instrument based on the ground-breaking concept of bolometric interferometry, which combines the high sensitivity of bolometric detectors with the purity of interferometry.

**The QUBIC Newsletter has as a main objective to share the advances in research and technological designs to discover the B-Modes in the CMB.**

Join us in this adventure!



<http://qubic.org.ar>

In this newsletter QUBIC Collaboration will present

#### Community Updates

Next steps

Stories of Impact

Volunteer Spotlight

Staff Profile Highlights

Publications Summaries

QUBIC is an international Collaboration including France, Italy, United Kingdom, Ireland and Argentina