

## Bolometer Camera for APEX

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**Abstract** - Since spring 2008, the Small Array Bolometer Camera (SABOCA) operates at APEX (Atacama Pathfinder Experiment), a 12-meter radio telescope on the high plateau Llano de Chajnantor in Chile's Atacama Desert. This instrument utilizes an array of 37 transition edge sensors to detect sub-millimeter radiation in a narrow band around 350 $\mu$ m wavelength, which fits the last useful atmospheric radio window on earth.

The TES array is operated at a temperature of 300 mK, enabling a background-limited operation with a measured noise equivalent flux density of around 200 mJy/s<sup>1/2</sup>. SABOCA is the precursor of larger arrays, so it is already equipped with a SQUID time-domain multiplexer, which combines ten bolometer channels each to altogether 4 output channels. We show the configuration of the instrument and present the measured performance under real operating conditions. To our knowledge, this is the first operating superconducting bolometer camera for astronomy entirely conceived and constructed in Europe.

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