

The GISMO-2^{*} Bolometer Camera

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Abstract

We present the concept for the GISMO-2 bolometer camera, which we build for background-limited operation at the IRAM 30 m telescope on Pico Veleta, Spain. GISMO-2 will operate simultaneously in the 1 mm and 2 mm atmospheric windows. The 1 mm channel uses a 32 x 40 TES-based Backshort Under Grid (BUG) bolometer array, the 2 mm channel operates with a 16 x 16 BUG array. The camera utilizes almost the entire full field of view provided by the telescope. The optical design of GISMO-2 was strongly influenced by our experience with the GISMO 2 mm bolometer camera which is successfully operating at the 30m telescope. GISMO is accessible to the astronomical community through the regular IRAM call for proposals.