

The Néel IRAM KID Arrays (NIKA)

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Abstract - We are developing an instrument based on Kinetic Inductance Detectors (KID) known as the Néel IRAM KID Array (NIKA). Leveraging the experience gained from the first generation NIKA in 2009, an improved, dual-band (150 GHz and 240 GHz) instrument has been designed and tested at the Institute of Radio Astronomie Millimetrique (IRAM) 30-meter telescope in October 2010. The performances, in terms of sensitivity on-the-sky at 150 GHz, are already comparable to existing state-of-the-art bolometer-based instruments. NIKA represents thus the first real proof that KID are a viable technology for ground-based Astronomy. We will describe the instrument, the most recent results and the future plans for building a large resident mm-wave camera.

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