

The SpaceKIDs project: Development of Kinetic Inductance Detector Arrays for Space Applications

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Kinetic Inductance Detectors (KIDs) offer the unique combination of excellent sensitivity to THz radiation along with minimal cryogenic complexity. The goal of the SpaceKIDs project is to work on the developments needed to enable this technology for both low-background (astrophysical) and high-background (Earth-observing) applications. Two laboratory demonstrator systems have been built to evaluate array characteristics and performance in an environment representative of the two applications. In this talk I will present an overview of the SpaceKIDs programme, describe in detail the performance of the demonstrator systems, and highlight some of the major results, which are set to have a significant impact on the design and characterisation of the next generation KID arrays.