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## Superconducting mm-wave detector development at Argonne National Laboratory

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Over the past decade, advances in arrays of superconducting detectors have revolutionized the field of mm-wave cosmology. Large-format arrays of thousands of transition-edge sensors (TESs) have provided an exquisite view of the mm-wave sky. The next decade promises to continue this trend, with a number of upcoming experiments such as the Simon's Observatory, CCAT-prime, SP-TMA, and CMB-S4. Kinetic inductance detectors (KIDs) offer an alternative path to densely packed focal plane arrays. With a significant reduction in manufacturing and readout complexity, KID arrays are set to play a key role in applications in both imaging and spectroscopy. I will present an overview of the ANL detector programme, focusing primarily on the on-going development of TES and KID arrays. In particular, I will describe aspects of the design, fabrication, and preliminary characterization of the dichroic OMT-coupled TES arrays for CMB-S4, the advances toward large-format KID arrays, and present two new KID-based instruments, SPT-SLIM and SPT-4, that are under development for the South Pole Telescope.

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