

# Bolometers for Millimeter-wave Cosmology

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**Abstract.** Bolometers offer high sensitivity for observations of the cosmic microwave background, Sunyaev-Zel'Dovich effect in clusters, and far-infrared galaxies. Near background-limited performance may be realized even under the low background conditions available from a space-borne platform. We discuss the achieved performance of silicon nitride micromesh ('spider web') bolometers readout by NTD Ge thermistors. We are developing arrays of such bolometers coupled to single-mode feedhorns. CMB polarization may be studied using a new absorber geometry allowing simultaneous detection of both linear polarizations in a single feedhorn with two individual detectors. Finally we discuss a new bolometer architecture consisting of an array of slot antennae coupled to filters and bolometers via superconducting microstrip.