

MILLIMETER RADAR AT GEORGIA TECH

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Abstract

This paper outlines the history of millimeter radar research at Georgia Tech during the past twenty years. During this period, numerous important developments have been achieved by investigators at Georgia Tech in the understanding and application of millimeter waves. Milestones in this work include 35 GHz propagation and scattering investigations dating from the early fifties (results of which are still widely referenced); early applications of 70 GHz, submillimeter radiometric and spectroscopic investigations beyond 300 GHz; development of unique, low-loss scanning antennas; and fabrication and testing of complete scanning radar systems at 70 GHz. Recent research includes investigations of scattering phenomena at all of the millimeter radar bands and the development of extremely high performance antennas at 70 and 95 GHz.