# Abstracts

## An Experimental 225 GHz Pulsed Coherent Radar

*R.W. McMillan, C.W. Trussell, Jr., R.A. Bohlander, J.C. Butterworth and R.E. Forsythe. "An Experimental 225 GHz Pulsed Coherent Radar." 1991 Transactions on Microwave Theory and Techniques 39.3 (Mar. 1991 [T-MTT]): 555-562.*

An experimental coherent pulsed radar operating at 225 GHz is described. This system uses a pulsed, phase-locked extended interaction oscillator transmitter and an f/4 (frequency divided by 4) subharmonic mixer pumped by a phase-locked Gunn oscillator as the receiver. A quasi-optical circular polarization duplexer combines transmitter and receiver signals into the same antenna. Results obtained with this system include the detection of targets out to ranges of 3.5 km and observation of Doppler spectra of trucks and tracked vehicles, including contributions from both body and tracks.

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