1014-00-1571 **Knut Solna*** (ksolna@math.uci.edu), 103 MST Building, UC Irvine, Irvine, CA 92697.

Propagation and Detection in a Cluttered Environment.

We discuss target detection in a cluttered medium. In particular we analyze the tradeoff between resolution and detection probability. The performance depends strongly on the medium clutter and in the paraxial regime we discuss how the multifrequency resolution is affected by the clutter. We also consider how the probing depth affects the choice of the central wavelength. (Received September 28, 2005)