

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Simulating surface roughness and its effects on electromagnetic waves scattering KAMLESH DOOKAYKA, University of California, Irvine — Surface roughness affects electromagnetic wave scattering in that there is transmission for light incident beyond the critical angle within the denser medium. Simulation studies are first used to corroborate experimental observation of such transmittance in the case of optical light, and are then applied to a regime corresponding to radio wave transmission through a rough air-ice interface. This is especially relevant for the ANITA experiment which detects radio Cerenkov emissions from within the Antarctic ice sheet.

Kamlesh Dookayka
University of California, Irvine

Date submitted: 14 Jan 2008

Electronic form version 1.4