

Abstract Submitted
for the DPP05 Meeting of
The American Physical Society

Bremsstrahlung and Radiation Transport in Weakly Ionized Plasma C.N. NGUYEN, H.L. RAPPAPORT, Enig Associates — Numerical simulations of Bremsstrahlung from inhomogeneous plasma have been performed using the Generalized Kirchoff law.¹ RF absorption is found in the low frequency regime by a finite element code and in the high frequency regime by a ray optics code. A method for separating incident rays into wave packet congruences is described. The particular physical system under study has conducting boundaries embedded within the plasma. The geometrical theory of diffraction is applied to evaluate wave energy in shadow regions. Computations in the penumbra regions where the separation of the electric field into plane and cylindrical waves fails is also discussed.

¹See poster of H.L. Rappaport at this meeting.

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Date submitted: 15 Jul 2005

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