## Abstract Submitted for the MAR08 Meeting of The American Physical Society

Calculations of second harmonic generation by nano-particles or holes<sup>1</sup> WILLIAM SCHAICH, Indiana University — We are setting up finite-difference time-domain (fdtd) calculations of second harmonic generation (shg) by metallic nano-particles or at nano-holes in metallic films. This generation is driven by first order fields at the metal surfaces, using the phenomenological a and b parameters that have been used to describe shg at planar jellium-metal surfaces. Our interest is in locating and understanding the occurrence of resonances and hot-spots for shg.

<sup>1</sup>Research supported in part by NSF-CBET-0708590.

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Date submitted: 02 Jan 2008 Electronic form version 1.4