Abstract Submitted
for the TSF10 Meeting of
The American Physical Society

Surface Plasmon Polariton Propagation, Interference and Diffraction JACOB AJIMO, CHARLES REAGAN, AYRTON BERNUSSI, Nanotech Center, Texas Tech University, LUIS GRAVE DE PERALTA, PHYSICS DEPT, TEXAS TECH UNIVERSITY TEAM, NANOTECH CENTER, TEXAS TECH UNIVERSITY TEAM — Interest in plasmonics calls for in depth characterization of surface plasmon polaritons. We present a series of experiments done to investigate the propagation, interference and diffraction of surface plasmon polaritons. Leakage radiation microscopy was used to image the in plane propagation of surface plasmon polaritons resulting in demonstration of a plasmonic quantum eraser. Fundamental aspects on the propagation of the SPPs based on experimental results will be presented. Experimental and simulation results on the use of dielectric loaded surface plasmon polariton waveguides will be discussed.

Jacob Ajimo
Physics Dept, Texas Tech University

Date submitted: 24 Sep 2010 Electronic form version 1.4