

Abstract Submitted
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Laboratory Study of Triggered Emissions and Nonlinear Wave-Particle Interactions¹ ERIK TEJERO, LON ENLOE, BILL AMATUCCI, CHRIS CRABTREE, GURU GANGULI, Naval Research Lab — Experiments conducted in the Space Physics Simulation Chamber at the Naval Research Laboratory using an electron beam propagating in a non-uniform magnetic field and an antenna launching counter-propagating Whistler waves have demonstrated nonlinear Whistler amplification and triggered emissions due to nonlinear wave-particle interactions. When the antenna was not used, chorus-like chirped Whistler waves were observed. These experiments provide a good testbed for understanding the generation mechanism for nonlinear wave-particle interactions and resulting wave phenomena. Recent results from these experiments will be presented.

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