

Abstract Submitted  
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**Generation of coherent microwave radiation in a three level lambda system**<sup>1</sup> SANKAR DAVULURI, YURI ROSTOTSEV, University of North Texas — Generation and control of coherent microwave radiation has gained lot of importance because of its potential applications in many fields like spectroscopy, metrology, atomic physics and Interferometry. In this presentation, we report the possibility of generation of coherent micro wave radiation in a three level lambda system. The upper two levels of the system are driven at resonance by a strong drive field while the highest and lowest levels are coupled by a weak probe field with some detuning. The coherent micro wave is generated between the lower two levels where the electric dipole moment is forbidden. The efficiency of the generated micro wave radiation is found to be very strongly dependent on the wave vector mismatch between the drive and probe fields.

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