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Microwave induced magnetoresistance oscillations under bichromatic excitation in AlGaAs/GaAs 2D electron system BINUKA GUNAWARDANA, RASANGA SAMARAWEERA, CHATHURANGA MUNASINGHE, HAN-CHUN LIU, Georgia State University, CHRISTIAN REICHL, WERNER WEGSCHEIDER, ETH-Zurich, RAMESH MANI, Georgia State University — Microwave radiation induced magnetoresistance oscillations observed in 2D electronic systems have shown a variation in those oscillations with microwave parameters such as, for example, the microwave frequency, the microwave power,[1] and the microwave linear polarization angle[2]. Here, we examine microwave induced magnetoresistance oscillations under bichromatic microwaves, under a systematic change of the microwave power, with the aim to compare the power-variation of the monochromatic- and bichromatic- excitation induced oscillatory diagonal resistance (Rxx). We find a sub-linear variation of the diagonal resistance at the extrema with microwave power for both bichromatic and monochromatic cases, and report the observed evolution in oscillatory Rxx line shapes. [1] R. G. Mani et al., Nature, 420, 646 (2002) [2] Tianyu Ye, Han-Chun Liu, W. Wegscheider, and R. G. Mani, Phys. Rev. B 89, 155307

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