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Microwave polarization study of radiation-induced magnetoresistance oscillations[1] TAREK GHANEM, R. G. MANI, Georgia State University, W. WEGSCHEIDER, University of Regensburg and ETH-Zurich — Under microwave irradiation, high mobility GaAs/AlGaAs samples display radiation-induced magnetoresistance oscillations and zero resistance states. These novel phenomena have attracted significant theoretical and experimental efforts over the last few years. Here, we experimentally investigate the effect of polarization direction for linearly polarized microwaves on the radiation induced magnetoresistance oscillations. Previous investigations suggest the independence of the oscillations on the polarization direction in consistency with theoretical predictions (Jesús Iñarrea and Gloria Platero, PRB 76, 073311 (2007)). Here, we present the results of our study and discuss the implications of the results for existing theoretical models.

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