

Abstract Submitted  
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**Microwave photo-voltaic oscillations in the GaAs/AlGaAs system**<sup>1</sup> GANESH CHAND, T. YE, A. RAMANAYAKA, R.G. MANI, Georgia State University, W. WEGSCHEIDER, ETH-Zurich — Microwave photo-excitation of the GaAs/AlGaAs system produces oscillations in the diagonal resistance that lead into novel zero-resistance states in the low temperature limit. Such photo-excitation also produces concomitant photo-voltage oscillations. Here, we examine this microwave photo-voltaic effect and correlate the results with observed magneto-transport over the frequency range  $30 \leq f \leq 120GHz$  in Hall bars fabricated from material characterized by  $n = 2 \times 10^{11} cm^{-2}$ .

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