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Anti-Weak Localization Measurements in the Ballistic Regime
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— Anti-weak localization dominates at low fields in systems in which spin-orbit coupling is strong. The experimental results are well described by theory [1] in low mobility systems in which the magnetic length (l_B) is greater than the mean free path; however high mobility systems with strong spin-orbit interactions, such the InSb based two dimensional systems (2DESs) examined here, are not in this diffusive regime. A recently developed theory [2] addresses both the diffusive and ballistic regimes taking into account both the backscattered and non-backscattered contributions to the conductivity. We will discuss the agreement of the new theory to measurements of InSb 2DESs prepared with both strong Dresselhaus and Rashba effects. [1] S.V. Iordanskii, Yu B. Lyanda-Geller, and G.E. Pikus, *JETP Lett.* **60**, 206 (1994). [2] L.E. Golub, *Phys. Rev. B.* **71**, 235310 (2005).

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