

Abstract Submitted  
for the MAR06 Meeting of  
The American Physical Society

**Intrinsic spin Hall conductivity**<sup>1</sup> PAVEL KROTKOV, University of Maryland, SANKAR DAS SARMA, University of Maryland — In an isotropic 2D gas with general dispersion and linear-in-k spin-orbital interaction of the Rashba or Dresselhaus type in the presence of impurities we find that an intrinsic spin-Hall conductivity is finite and is of the order of the spin-orbit term squared. It vanishes only in the well-studied particular case of a quadratic dispersion.

<sup>1</sup>Supported by NSF, US-ONR, and LPS-NSA.

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Date submitted: 30 Nov 2005

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