

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

High Resolution Magneto-Optic Measurements in GaAs using a Sagnac Interferometer ALEXANDER FRIED, Stanford — The Sagnac Interferometer is a tool which measures the Polar Kerr effect—a direct indicator of magnetism. Using 820 nm light from a superluminescent diode, we probe GaAs structures and measure the Kerr angle with sub-microradian resolution. By utilizing diffraction limited optics and a piezoelectric scanner, we also achieve high spatial resolution. Our measurements are performed at cryogenic temperatures and offer a way to measure the Spin Hall Effect in the DC regime along with other forms of magnetic order.

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Date submitted: 28 Nov 2010

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