Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

The Effect of Inelastic Scattering of Charge Carriers on the Reliability of the Value of the Spin Polarization as Determined from Superconductor/Ferromagnet Point Contact Conductance Data PAUL J. DOLAN, JR., Northeastern Illinois University, Chicago, IL, CHARLES W. SMITH, University of Maine, Orono, ME — An extended BTK model for charge transport in a superconductor/ferromagnet point contact can be used to determine the value of the spin polarization of the ferromagnet. We estimate the effect of inelastic scattering of charge carriers in the active region of the contact on the reliability of the value of the polarization as determined from conductance data. The effect can be substantial and depends upon contact transparency.

Paul J. Dolan, Jr.
Northeastern Illinois University, Chicago, IL

Date submitted: 01 Nov 2013 Electronic form version 1.4