

Abstract Submitted  
for the MAR07 Meeting of  
The American Physical Society

**A Strategy for Fitting a Three Parameter Model of Charge Transport in Ferromagnetic/Superconductor Point Contacts** CHARLES W. SMITH, University of Maine, PAUL J. DOLAN, JR., Northeastern Illinois University — We study charge transport in ferromagnet/superconductor point contacts that exhibit effects of spin polarization ( $P$ ), interface elastic scattering ( $Z$ ), and bulk inelastic scattering ( $\Gamma$ ). We demonstrate a strategy to extract values for  $P$ ,  $Z$  and  $\Gamma$  from conductance data, as a function of temperature. The resulting parameter set can then be used to fit a model that describes charge transport in this type of point contact. Experimental examples will be presented.

Charles W. Smith  
University of Maine

Date submitted: 12 Sep 2006

Electronic form version 1.4