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The Effect Of Spontaneous Magnetization On The Reliability Of The Value For The Spin Polarization As Fitted From Ferromagnet/Superconductor Point Contact Data PAUL J. DOLAN, JR., Northeastern Illinois University, CHARLES W. SMITH, University of Maine — The generalized BTK model for charge transport in a ferromagnet/superconductor point contact can be used to estimate the spin polarization in a ferromagnet. However, even when these measurements are carried out in zero applied magnetic field, there can be a substantial field in the active region of the contact due to the spontaneous magnetization of the ferromagnet itself. We estimate the effect of spontaneous magnetization on the reliability of the values of the spin polarization parameter for various ranges in contact transparency, inelastic scattering and temperature.

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