Abstract Submitted
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Role of dipolar interactions in the determination of intrinsic switching field distributions in perpendicular recording media[1] YANG LIU, KARIN DAHMEN, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA, ANDREAS BERGER, CIC nanoGUNE Consolider, E-20009 Donostia - San Sebastian, Spain — The $\Delta H(M, \Delta M)$ method and its ability to determine the intrinsic switching field distributions of perpendicular recording media are numerically studied with the coupled hysteron model. It is found that the presence of dipolar interactions with strength of practical recording media enhances the reliability of the $\Delta H(M, \Delta M)$ method. The correlation between the fit quality measure and the deviation from redundancy measure indicates that the latter, which can be determined from experimental data alone, is a good predictor of the reliability.

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