Imaging chiral spin textures with spin-polarized low energy electron microscopy

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Chirality in magnetic materials is fundamentally interesting holds potential for logic and memory applications [1-4]. Using spin-polarized low-energy electron microscopy, we recently observed chiral Néel walls in thin films [5]. We developed ways to tailor the Dzyaloshinskii-Moriya interaction, which drives the chirality, by interface engineering [6], and we found that Néel- and Bloch- chirality type can be tuned in the presence of uniaxial strain. This work was done in collaboration with G. Chen, A.T.N’diaye, T.P.Ma, A.Mascaraque, C.Won, Z.Q.Qiu, Y.Z.Wu.