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Chiral magnetic skyrmion solutions of 2D Landau-Lifshitz equations: stability.

Landau-Lifshitz equations are the basic dynamical equations in a micromagnetic description of a ferromagnet. They are naturally viewed as geometric evolution PDE of dispersive ("Schrödinger map") or mixed dispersive-diffusive type, which scale critically with respect to the physical energy in two dimensions. We describe results on the stability of important topological soliton solutions known as "chiral magnetic skyrmions". Joint work with Stephen Gustafson.