

Abstract Submitted
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Current-Induced Spin Wave Instability SCOTT
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Current in conducting ferromagnets imparts angular momentum to the magnetic
texture. Above a critical current, an instability is reached wherein this angular mo-
mentum transfer is able to overcome intrinsic damping, and spin waves begin to
grow exponentially in time. We examine the conditions required to observe this in-
stability for bulk and surface spin waves in different dimensions, and investigate the
subsequent spin wave turbulence engendered by nonlinear terms in the Hamiltonian
that couple different modes.

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