

Abstract Submitted
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The Annihilation of Vortex Anti-Vortex Pairs DEREK REITZ,
OLEG TCHERNYSHYOV, Johns Hopkins University — We study theoretically
the annihilation of a vortex-antivortex pair in a two-dimensional easy-plane ferro-
magnet. For opposite out-of-plane orientations of the vortex cores, the two solitons
orbit each other. In the presence of finite damping, the radius of the orbit gradually
decreases until the cores overlap. We compare predictions of analytical theory to
results of micromagnetic simulations.

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