Anomalous energetics and dynamics of moving vortices\textsuperscript{1} LEO RADZIHOVSKY, Department of Physics, University of Colorado — Motivated by the general problem of moving topological defects in an otherwise ordered state and specifically, by the anomalous dynamics observed in vortex-antivortex annihilation and coarsening experiments in freely-suspended smectic-C films, I study the deformation, energetics and dynamics of moving vortices in an overdamped xy-model and show that their properties are significantly and qualitatively modified by the motion.

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