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Chuu-Lian Terng* (cterng@math.uci.edu), Chuu-Lian Terng, Department of Mathematics, University of California, Irvine, CA 92697-3875. *The Hodge star mean curvature flow for curves in flat 3-space*. Preliminary report.

The Hodge star Mean curvature flow for curves in 3-dimensional Euclidean space or Lorentzian space is the curve flow $\gamma_t = *H$, where H is the mean curvature vector and $*$ is the Hodge star operator on the normal bundle of the curve $\gamma(\cdot, t)$. I will explain the relation between this curve flow and soliton theory. (Received April 12, 2010)