1042-57-17 **Cagatay Kutluhan*** (kutluhan@umich.edu), 530 Church St., 2074 East Hall, Ann Arbor, MI 48109, and **Clifford H Taubes** (chtaubes@math.harvard.edu), One Oxford Street, Cambridge, MA 02138. *Seiberg-Witten Floer homology and symplectic forms on $S^1 \times M^3$.*

Let M be a closed, connected, orientable three-manifold. The purpose of this paper is to study the Seiberg-Witten Floer homology of M given that $S^1 \times M$ admits a symplectic form. In particular, we prove that Seiberg-Witten Floer homology of M resembles that of a 3-manifold which fibers over the circle if $S^1 \times M$ admits a symplectic form. (Received August 13, 2008)