Abstract

The Weinstein conjecture states that any Reeb vector field on a closed manifold has at least one closed orbit. The three-dimensional case of this conjecture was proved by C. Taubes in 2007. I will discuss joint work showing that for a wide class of Reeb vector fields on closed three-manifolds, there are either two, or infinitely many, distinct closed orbits. I will also say a few words about how one might extend this result to all Reeb vector fields on closed three-manifolds.