

1125-53-174

Bahar Acu* (bacu@usc.edu), 3620 S Vermont Ave KAP 104, Los Angeles, CA 90089-2532. *The Weinstein Conjecture for Iterated Planar Open Books.*

The Weinstein conjecture states that, on a compact contact manifold, any Reeb vector field carries at least one periodic orbit. The conjecture was proven for all closed 3-dimensional manifolds by Taubes, but it is still open in higher dimensions. We provide the motivation behind this conjecture along with related results in certain cases and iterate the ideas and the machinery used in dimension 3 to higher dimensions to prove the Weinstein conjecture on a special class of Weinstein fillable contact manifolds. (Received August 09, 2016)