

1151-57-117

Siddhi Krishna* (siddhi.krishna@bc.edu). *Taut Foliations, Positive 3-Braids, and the L-Space Conjecture.*

The L-Space Conjecture is taking the low-dimensional topology community by storm. It aims to relate seemingly distinct Floer homological, algebraic, and geometric properties of a closed 3-manifold Y . In particular, it predicts a 3-manifold Y isn't "simple" from the perspective of Heegaard-Floer homology if and only if Y admits a taut foliation. The reverse implication was proved by Ozsvath and Szabo. In this talk, we'll present a new theorem supporting the forward implication. Namely, we'll build taut foliations for manifolds obtained by surgery on positive 3-braid closures. Our theorem provides the first construction of taut foliations for every non-L-space obtained by surgery along an infinite family of hyperbolic L-space knots. (Received August 13, 2019)