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Siddhi Krishna* (siddhi.krishna@bc.edu), Department of Mathematics, Maloney Hall, Fifth Floor, Boston College, Chestnut Hill, MA 02467. *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 discuss how to build taut foliations for manifolds obtained by surgery on positive 3-braid closures. No background in Heegaard-Floer or foliation theories will be assumed. (Received August 28, 2018)