

Characterizing slopes for Legendrian knots

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From a given Legendrian knot K in the standard contact 3-sphere, we can construct a symplectic 4-manifold W_K by attaching a Weinstein 2-handle along K to the 4-ball. In this talk, we will construct non-equivalent Legendrian knots K and K' such that W_K and $W_{K'}$ are equivalent. On the other hand, we will discuss an example of a Legendrian knot K that is characterized by its symplectic 4-manifold W_K . This is based on joint work with Roger Casals and John Etnyre.

No previous knowledge of contact geometry is assumed. We will discuss all relevant notions.