

1093-53-82

Tobias Ekholm and **Lenhard Ng*** (ng@math.duke.edu). *Legendrian contact homology in $\#^k(S^1 \times S^2)$.*

I will discuss a combinatorial description of contact homology for Legendrian knots in the contact manifold $S^1 \times S^2$ and connected sums of it. Among other things, this yields a combinatorial formulation for symplectic homology for all Weinstein 4-manifolds, and a (new) proof of the existence of exotic Stein structures on \mathbb{R}^8 . The story involves some new algebraic wrinkles on the more familiar story, due to Chekanov, for Legendrian contact homology in \mathbb{R}^3 . (Received August 01, 2013)