

1108-57-107

M. Hedden, C. Herald and **P. Kirk*** (pkirk@indiana.edu). *The pillowcase and traceless representations of knot groups*. Preliminary report.

We define an elementary relatively $\mathbb{Z}/4$ graded Lagrangian-Floer chain complex for restricted immersions of compact 1-manifolds into the pillowcase, and apply it to the intersection diagram obtained by taking traceless $SU(2)$ character varieties of 2-tangle decompositions of knots. Calculations for torus knots are explained in terms of pictures in the punctured plane. The relation to the reduced instanton homology of knots is explored. (Received January 05, 2015)