WENZHAO CHEN, Michigan State University
Upsilon invariant and Cabling

Derived from knot Floer homology, the Upsilon invariant can be viewed as a homomorphism from the smooth knot concordance group to the group of piecewise linear functions on $[0, 2]$, which generalizes an earlier known concordance invariant τ. It is natural to ask how Upsilon invariant behaves under the cabling operation. As a partial answer to this question, in this talk we will show an inequality relating the Upsilon invariant of a knot and that of its cable, obtained by generalizing the work of Hedden and Van Cott on τ-invariant of cable knots. We will also discuss some applications of this inequality.