

1173-57-128

Adam M Lowrance* (adlowrance@vassar.edu). *Extremal and near extremal Khovanov homology of Turaev genus one links.*

The Turaev surface of a link diagram is a closed oriented surface constructed from a cobordism between the all-A and all-B Kauffman states of the diagram. The Turaev genus of a link is the minimum genus of any Turaev surface of the link. A link is Turaev genus zero if and only if its alternating. Links of Turaev genus one include almost alternating links, non-alternating pretzel links, and non-alternating Montesinos links.

In this talk, we discuss results about the structure of the Khovanov homology of Turaev genus one links in the extremal and near extremal polynomial gradings. We also discuss applications. (Received September 18, 2021)