1171-57-217 **Adam M Lowrance*** (adlowrance@vassar.edu). *Extremal and near extremal Khovanov homology of Turaev genus one knots.* Preliminary report.

The Turaev surface of a knot diagram is constructed from a prescribed cobordism between the all-A and all-B Kauffman states of the diagram. The Turaev genus of a knot is the minimum genus of any Turaev surface of the knot. In this talk, we examine the extremal and near extremal polynomial gradings in the Khovanov homology of knots with Turaev genus one. Using our results, we can show that certain knots are Turaev genus two. Also, in some cases we can compute Rasmussen's invariant for Turaev genus one knots. (Received August 13, 2021)