

A Turaev surface approach to Khovanov homology

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We introduce Khovanov homology for ribbon graphs and show that the Khovanov homology of a certain ribbon graph embedded on the Turaev surface of a link is isomorphic to the Khovanov homology of the link (after a grading shift). We also present a spanning quasi-tree model for the Khovanov homology of a ribbon graph.

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