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Ik Jae Lee* (ijlee@math.ksu.edu), 3103 Heritage Ct. #64, Manhattan, KS 66503. *A new generalization of the Khovanov Homology.* Preliminary report.

In this paper we give a new generalization of the Khovanov homology. The construction begins with a Frobenius-algebra-like object in a category of graded vector-spaces with an anyonic braiding, with most of the relations weakened to hold only up to phase. The construction of Khovanov can be adapted to give a new link homology theory from such data. Both Khovanov's original theory and the odd Khovanov homology of Ozsvath, Rasmussen and Szabo arise from special cases of the construction in which the braiding is a symmetry. (Received July 28, 2011)