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(wangxiao@gwu.edu) and **Seung Yeop Yang**. *Search for torsion in Khovanov homology.*

In the Khovanov homology of links, presence of \mathbb{Z}_2 -torsion is a very common phenomenon. Finite number of examples of knots with \mathbb{Z}_n -torsion for $n > 2$ were also known, none for $n > 8$. In this paper, we prove that there are infinite families of links whose Khovanov homology contains \mathbb{Z}_n -torsion for $2 < n < 9$ and \mathbb{Z}_{2^s} -torsion for $s < 24$. We also introduce 4-braid links with \mathbb{Z}_3 -torsion which are counterexamples to the PS braid conjecture. We also provide an infinite family of knots with \mathbb{Z}_5 -torsion in reduced Khovanov homology and \mathbb{Z}_3 -torsion in odd Khovanov homology. (Received February 27, 2017)