Alexander N. Shumakovitch* (Shurik@gwu.edu), The George Washington University, Department of Mathematics, Monroe Hall, room 240, Washington, DC 20052. Homologically Z₂-thin knots have no 4-torsion in Khovanov homology. Preliminary report.

We will demonstrate how to use the Bockstein spectral sequence to prove that homologically \mathbb{Z}_2 -thin knots have no 4-torsion in Khovanov homology. This completes the proof of the fact that the integer Khovanov homology of alternating knots is completely determined by their Jones polynomial and signature. (Received March 30, 2010)