1135-57-1081 **Melissa Li Zhang*** (melissa.zhang@bc.edu), Maloney Hall 534, Department of Mathematics, Boston College, Chestnut Hill, MA 02467. *Annular Khovanov homology and 2-periodic links.*

A link in the 3-sphere is periodic if rotation about an unknotted axis preserves the link. By deleting the axis, we may view the periodic link as embedded in a solid torus, or a thickened annulus. For a 2-periodic link, we study the relationship between the periodic link and its quotient link via annular Khovanov homology, a triply-graded variant of Khovanov homology defined by Asaeda, Przytycki, and Sikora for links in thickened annuli. By employing algebraic methods from Smith theory, we obtain a spectral sequence for each pair of quantum and winding number gradings. From this we derive rank inequalities and decategorifications reminiscent of Murasugi's formulas for the Jones and Alexander polynomials. Curiously, the same methods suggest a similar spectral sequence relating the Khovanov homology of a 2-periodic link and the annular Khovanov homology of its quotient link. We discuss partial results on this front. (Received September 19, 2017)