1067-57-1994   **Eamonn Tweedy*** (`eptweedy@math.ucla.edu`). *On the $\mathcal{R}$-filtration for the Heegaard Floer chain complex of a branched double-cover.*

Seidel and Smith defined a knot invariant called symplectic Khovanov homology using braid closures. One can relate a set of generators for their complex to one for the Heegaard Floer hat-complex for the branched double-cover, and the Seidel-Smith homological grading induces a filtration $\mathcal{R}$ on the Heegaard Floer complex. The $\mathcal{R}$-filtered chain homotopy type of this complex is a knot invariant, and tensors under taking connected sums of knots. The filtered complex provides a spectral sequence computing Heegaard Floer hat-homology group, and one obtains an absolute Maslov grading on this group when the spectral sequence collapses at the E_2-page (which occurs for all two-bridge knots, for example). We conclude with some speculation regarding the nature of this filtration. (Received September 22, 2010)