Matthew Hogancamp* (mhoganca@indiana.edu) and Benjamin Elias. Diagonalization of the full twist. Preliminary report.

I will discuss recent work with Ben Elias in which we diagonalize the action of the full-twist braid on the category of Soergel bimodules. The “eigenprojections” yield categorified Young symmetrizers, which can be used to give a construction of an arbitrarily colored triply-graded link homology theory, and are also important in the categorical representation theory of Hecke algebras. I will mention a conjecture of Gorsky-Rasmussen relating our construction to the flag Hilbert scheme. The categorified Young symmetrizers are also related to stable homology of torus links, which was recently investigated by myself and Michael Abel. (Received September 19, 2015)