1127-55-347   **Jeremy Miller**, **Peter Patzt** and **Jennifer C. H. Wilson***, jchw@stanford.edu. *Stability in the second homology of Torelli groups.*

In this talk, I will describe stability results for two families of groups, the Torelli groups of automorphisms of free groups, and (respectively) the Torelli groups of mapping class groups of surfaces with one boundary component. Specifically, I will explain the following statement: the degree-2 integer homology groups of these Torelli groups are *centrally stable* when viewed as representations of $\mathrm{GL}_n(\mathbb{Z})$ and (respectively) $\mathrm{Sp}_{2n}(\mathbb{Z})$. This project uses a framework developed by Putman, Church–Ellenberg–Farb, and Putman–Sam. It is work in progress, joint with Jeremy Miller and Peter Patzt. (Received February 06, 2017)