Stephan Wehrli (Syracuse)

Commuting actions of sl(2) and S_n on sutured annular Khovanov homology

To a link L in a thickened annulus, Asaeda-Przytycki-Sikora assigned a Khovanov-type homology theory which categorifies the skein module of the thickened annulus and which is related to a certain knot Floer homology by work of Roberts. In this talk, I will show that this homology theory carries a natural action of sl(2) and, in the case where L is the n-cable of a framed knot K, a commuting action of the symmetric group S_n. In the case where K is the 0-framed unknot, we recover classical Schur-Weyl duality for the nth tensor power of the fundamental representation of sl(2). This is joint work with Eli Grigsby and Tony Licata.