Contribution ID: **3** Type: **not specified**

7/31 [Timothy Logvinenko] McKay correspondence and perverse schobers

A classical result by Seidel and Thomas shows that there is a faithful categorical action of the braid group Br_n on the derived category D(Y) of the minimal resolution Y of the Kleinian singularity C^2/G of A_{n-1}-type. The generators of Br_n act by spherical twists around the exceptional curves of Y. Recall that the classifying space of Br_n is the big open stratum (h/W)*0 of h/W stratified by positive roots, where h is a Cartan subalgebra of the corresponding Lie algebra sl*{n} and W is the Weil group. We can therefore view a categorical action of Br_n on D^b(Y) as a local system of triangulated categories on (h/W)_0. In this talk, I will discuss a joint ongoing work with my PhD student Chris Seaman to extend this local system to a perverse schober on the whole of h/W. The idea is to use well-known interpretation of h/W as the theta-stability parameter space for the GIT problem which constructs Y as a moduli space of G-constellations. We then aim to construct a "window-shift" shober for this GIT problem similar to that recently constructed by Spenko and van den Bergh in the Halpern-Leistner and Sam setup of a quasi-symmetric linear action of a reductive group. In our case, the action isn't quasi-symmetric, and numerous complications arise.