

TOPOLOGY SEMINAR

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Centers and traces of
categorified affine Hecke algebras
(or, some tricks with coherent complexes
on the Steinberg variety)

Tuesday, February 26th, 4:00pm, in 383-N

Abstract: The bounded coherent dg-category on (suitable versions of) the Steinberg stack $(\mathbf{L}B \backslash G/B)$ is a categorification of the affine Hecke algebra in representation theory. We discuss how to describe the center and universal trace of this monoidal dg-category: the trace is given by coherent complexes on $\mathrm{Loc}_G(T)$ with nilpotent “odd microsupport”, while the center corresponds to (ordinary) support being proper over the second monodromy map. The techniques involved are general tools for working with small categories of sheaves in algebraic geometry. This is joint work with Ben-Zvi and Nadler.