

Young Women Young Women in Topology Meeting 2013
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Talk 8:
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From Springer Theory to monoidal categories

We generalize the classical Springer map to a union of collapsings of homogeneous vector bundles. Then, we calculate explicitly the equivariant Borel-Moore homology algebra of the associated Steinberg variety. We use this knowledge to calculate generators and relations for the monoidal category of "Lusztig's perverse sheaves" associated to symplectic quiver-graded Springer theory. Lusztig's perverse sheaves for quiver-graded Springer theory are known (since 30 years) to be a monoidal categorification of the positive half of the quantum group associated to the quiver.