CRC 1624 HIGHER STRUCTURES, MODULI SPACES AND INTEGRABILITY

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Perverse sheaves on h/W and constant terms of Eisenstein series

The adjoint quotient h/W of a reductive Lie algebra has a natural complex stratification "by root multiplicities". So we have the corresponding category of perverse sheaves and the problem of its description by a quiver with relations is interesting on general grounds. It turns out that the relations in such a quiver are parallel to the relations between parabolic induction and restriction in representation theory or, at one categorical level lower, between the operations of forming Eisenstein series and taking the constant term in the theory of automorphic forms.

Joint work with V. Schechtman, O. Schiffmann and J. Yuan.