

Cluster algebras and singular supports of perverse sheaves

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We propose an approach via perverse sheaves on the space of quiver representations to Geiss-Leclerc-Schroer's conjecture on the (quantum) cluster algebra structure on the coordinate ring of a unipotent subgroup and the dual canonical base. The cluster algebra structure has been explained in the representation theory of the preprojective algebra. So the idea is to relate it to perverse sheaves via singular supports.