



Seminar/Talk

Center of quantum category O and cohomology of affine flag varieties

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The center of a category is an important invariant. In 1990 Soergel studied the center of each block of BGG category O , and established an algebra isomorphism to the singular cohomology ring of certain (partial) flag variety. In this talk, we will consider an analogue of BGG category O for quantum groups at roots of unity, which involves the so called hybrid (or mixed) quantum group. We show that the center of each block is isomorphic to the singular cohomology ring of certain (partial) affine flag variety. The first half of this talk will be devoted to review Soergels result. In the second half, we will introduce the quantum category O and discuss our result on its center.

Thursday, March 19, 2026 01:15pm - 03:00pm

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



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