

The anti-spherical Hecke category for Hermitian symmetric pairs

vendredi 27 octobre 2023 10:20 (1h 20m)

In this talk, I will discuss the representation theory of the anti-spherical Hecke categories for Hermitian symmetric pairs (W, P) over a field k of characteristic p . Minimal coset representatives for Hermitian symmetric pairs are fully commutative elements (as defined by Stembridge) and we will see how this property implies a much simplified diagrammatic presentation for the corresponding Hecke categories. I will explain how the representation theory can be reduced to the simply laced cases via explicit graded Morita equivalences.

In the simply laced cases, the light leaves basis elements for the Hecke categories can be described in terms of certain generalisations of oriented Temperley-Lieb algebras. It follows from this description that the graded decomposition numbers, that is the p -Kazhdan-Lusztig polynomials for Hermitian symmetric pairs, are all characteristic free.

This is based on joint works with C. Bowman, N. Farrell, A. Hazi and E. Norton.

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