

Coxeter presentations of double affine Hecke algebras

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In Cherednik's construction, double affine Hecke algebras are defined as endomorphism algebras of the affine Hecke algebra representations induced from the trivial representation of its finite Hecke sub-algebra. A more comprehensive construction is due to Macdonald who associates a double affine Hecke algebra to a pair of (not necessarily reduced) affine root systems and other data. I will present a description of double Hecke algebras in terms of Coxeter-type diagrams, relate it to other descriptions in the literature, and explore some (representation theoretical) consequences.

This is joint work with S. Sahi.

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