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Title: Parabolic induction and restriction functors for rational Cherednik algebras and their applications.

Abstract: We introduce parabolic induction and restriction functors for rational Cherednik algebras and study their basic properties. Then we discuss applications of these functors to representation theory of rational Cherednik algebras. In particular, we prove the Gordon-Stafford theorem about Morita equivalence of the rational Cherednik algebra for type A and its spherical subalgebra without the assumption that c is not a half-integer, which was required up to now. Also, we classify representations from category \mathcal{O} over the rational Cherednik algebras of type A which do not contain an S_n -invariant vector, and confirm a conjecture of Okounkov and the first author on the number of such representations (joint work with R. Bezrukavnikov).