Representations of Yangians and rational Cherednik algebras and Zhelobenko operators

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Irreducible representations of simple groups etc. are usually given as quotients of certain standard modules; more precise constructions realize them as kernels or images of intertwining operators between standard modules. Standard modules of Yangians and of Cherednik algebras can be describes as restrictions of natural representations of certain reduction algebras, and corresponding Zhelobenko operators provide explicit expressions for intertwining operators.