The Quantum Wreath Product

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Abstract

I will talk about a new operation (which we call the quantum wreath product) that produces a algebra $B \wr_Q \mathcal{H}(d)$ from a given algebra B, a given rank d, and a choice Q of parameters. This provides a uniform treatment to structure and representation theory of all Hecke-like algebras, including but not limited to the Ariki-Koike algebras, the Yokonuma-Hecke algebras, the Hu subalgebra, and the extended affine Hecke algebras of type A.