

# On cyclotomic quiver Hecke algebras of affine type

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We recall Fock representations over affine Lie algebras, which arose from the soliton theory, and categorification of integrable highest weight modules via cyclotomic quiver Hecke algebras. Then, I explain graded dimension formulas for the idempotent truncation of the cyclotomic quiver Hecke algebras, the Chuang-Rouquier derived equivalence and the Brundan-Kleshchev isomorphism theorem. In the last part, I explain two applications briefly. One is the classification of tame block algebras of Hecke algebras of classical type, the other is Specht module theory for affine type C. The latter is joint work with Euiyong Park and Liron Speyer.

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