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Jinkui Wan, VA , and **Weiqiang Wang***, Department of Mathematics, University of Virginia,
Charlottesville, VA 22904. *Modular representations of wreath Hecke algebras and crystals.*

We introduce a generalization of degenerate affine Hecke algebra, called wreath Hecke algebra, associated to an arbitrary finite group G . The simple modules of the wreath Hecke algebra and of its associated cyclotomic algebras are classified over an algebraically closed field of any characteristic p . The modular branching rules for these algebras are obtained, and when p does not divide the order of G , they are further identified with crystal graphs of integrable modules for quantum affine algebras. (Received February 04, 2009)