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Matthew Hyatt* (m.hyatt@math.miami.edu). *Eulerian quasisymmetric functions for the type B Coxeter group and other wreath product groups.*

Eulerian quasisymmetric functions were introduced by Shareshian and Wachs in order to obtain a q -analog, involving the permutation statistics major index and excedance number, of Euler's exponential generating function formula for the Eulerian polynomials. We introduce colored Eulerian quasisymmetric functions in order to obtain a generalization of Shareshian and Wachs' formula involving colored permutation statistics of Adin, Brenti and Roichman and Foata and Han. We discuss some consequences of this formula and some of the additional properties possessed by colored Eulerian quasisymmetric functions. (Received January 14, 2011)