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Naomi L Krawzik* (naomikrawzik@my.unt.edu). *Graded Hecke algebras arising from the symmetric group acting in positive characteristic.*

We discuss skew group algebras and their deformations. Deformations of skew group algebras have been well studied when the characteristic of the underlying field is zero. In that case, every Lusztig graded Hecke algebra is isomorphic to a Drinfeld Hecke algebra as filtered algebras. However, new algebras arise when the characteristic of the field divides the order of the group acting, specifically when the symmetric group acts on a polynomial ring in positive characteristic. We present a classification of the resulting graded Hecke algebras using PBW conditions. (Received March 03, 2020)