

1023-11-1186

Alan Koch* (akoch@agnesscott.edu), Department of Mathematics, Agnes Scott College, 141 E. College Ave., Decatur, GA 30030. *The Breuil Module of a p -Torsion Group Scheme Represented by a Monogenic Hopf Algebra*. Preliminary report.

Let R be a characteristic zero discrete valuation ring with residue field k of characteristic p . We give the Breuil module for each R -group scheme $G = \text{Spec}(H)$ such that G is of rank p^n for some n , G is killed by p , and H is a monogenic R -Hopf algebra. Each Breuil module arises as a lift of the Dieudonné module of some k -group scheme of rank p^n which is killed by p and monogenically represented. We start with these k -group schemes and construct all of their lifts to R . (Received September 25, 2006)