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Lance Edward Miller* (lmiller@math.uconn.edu), 196 Auditorium Dr, Storrs, CT 06269. *On the Structure of Witt-Burnside rings over pro- p groups.*

The (classical) Witt vectors are a functorial construction which takes perfect fields of characteristic p to p -adically complete domains of characteristic 0. In particular, finite fields of characteristic p go to rings of integers of finite unramified extensions of \mathbf{Q}_p . This functor was generalized by Dress and Siebeneicher to a functor W_G associated to any profinite group G , with Witt's construction being the special case $G = \mathbf{Z}_p$. In this talk we will explore some examples of $W_G(k)$ where G is a pro- p group and k is a field of characteristic p . In these examples we will see some properties that are surprising when compared to the classical case. (Received September 21, 2009)