

**Meeting:** 1004, Bowling Green, Kentucky, SS 10A, Special Session on Hopf Algebras and Related Topics

1004-13-109      **Lindsay N. Childs\*** (childs@math.albany.edu), Department of Mathematics and Statistics,  
University at Albany, Albany, NY 12222, and **Harold H. Smith, III.** *Dual Hopf orders in group  
rings of elementary abelian  $p$ -groups.*

Let  $K$  be a finite extension of  $\mathbb{Q}_p$ , the  $p$ -adic rational numbers, with valuation ring  $R$  containing a primitive  $p$ th root of unity. Let  $G$  be an elementary abelian  $p$ -group of order  $p^n$  with dual  $\hat{G}$ . We construct a new family of pairs of dual  $R$ -Hopf orders in  $KG$  and  $K\hat{G}$ . The construction extends that of C. Greither and Childs [Memoirs Amer. Math. Soc. 136 (1998), No. 651, 91-117]. (Received January 20, 2005)