Robert G Underwood* (runderwo@mail.aum.edu), Department of Mathematics, Auburn University Montgomery, Montgomery, AL 36124. Realizable Hopf orders in KC_{p^3} . Preliminary report.

Let K be a finite extension of the p-adic rationals with ring of integers R. Let C_{p^3} denote the cyclic group of order p^3 . In this paper we construct a new collection of Hopf orders in the group ring KC_{p^3} . We determine which of these Hopf orders are realizable as Galois groups. (Received February 13, 2006)