

**Meeting:** 1004, Bowling Green, Kentucky, SS 11A, Special Session on Commutative Ring Theory

1004-13-85      **David E Dobbs** and **Jay Shapiro\*** (jshapiro@gmu.edu), Department of Mathematics, George Mason University, Fairfax, VA. *Descent of Minimal Overrings of Integrally Closed Domains to Fixed Rings.*

Let  $G$  be a group acting via ring automorphisms on a commutative unital ring  $R$ . When  $G$  is finite, we show that the embedding  $R^G \hookrightarrow R$  is universally going-down. We also have generalizations to certain classes of locally finite actions by infinite groups. If  $R$  is an integrally closed integral domain with a minimal overring and  $G$  is finite with  $|G|^{-1} \in R$ , then it is shown that  $R^G$  has a minimal overring which is the  $G$ -fixed ring of the Kaplansky transform of some radical ideal of  $R$ . (Received January 18, 2005)