

1075-13-56

Paul C Roberts* (roberts@math.utah.edu), Department of Mathematics, University of Utah,
155 S 1400 E, Rm 233, Salt Lake City, UT 84112-0090. *Normal Non-Cohen-Macaulay Rings.*

In attempting to map a local ring to a Cohen-Macaulay ring, a natural step is to first map it to a normal domain. This reduces the problem to the case of normal domains and focuses attention on this case.

In fact, the number of actual examples of normal domains that are not Cohen-Macaulay is fairly limited, and techniques for finding maps to Cohen-Macaulay rings, particularly in mixed characteristic, often work in these cases for rather special reasons. In this talk we discuss these special properties and conditions needed to make these constructions work in general. (Received August 18, 2011)