

1023-13-822

Christopher A. Francisco* (chrisf@math.missouri.edu), Department of Mathematics,
University of Missouri, 202 Mathematical Sciences Building, Columbia, MO 65211. *A
combinatorial approach to tetrahedral curves.*

A tetrahedral curve is a (usually nonreduced) curve in \mathbb{P}^3 defined by an unmixed, height two ideal generated by monomials. We characterize when these curves are arithmetically Cohen-Macaulay by associating a graph to each curve and, using results from combinatorial commutative algebra and Alexander duality, relating the structure of the complementary graph to the Cohen-Macaulay property. (Received September 22, 2006)