

1073-05-225

Jay Schweig* (jschweig@math.ku.edu), KU Math Dept., Lawrence, KS 66045. *Algebraic Properties of Lattice Path Matroids and Polymatroids.*

Lattice path matroids are transversal matroids whose bases can be interpreted as certain planar lattice paths. We discuss some algebraic results concerning these matroids, proving a special case of White's conjecture on the generating sets of toric ideals associated to the bases of these matroids. We then generalize to a related class of discrete polymatroids, and discuss possible approaches to White's conjecture for other classes of matroids. No prior knowledge of toric ideals or polymatroids will be assumed. (Received August 02, 2011)