

962-16-1122

Colin Ingalls (cingalls@kurims.kyoto-u.ac.jp), Research Institute for Mathematical Sciences, Kyoto University, Kyoto 606-8502, Japan, and **David Patrick*** (patrick@math.washington.edu), University of Washington, Seattle, WA 98195-4350.

Blowings-up of noncommutative weighted projective planes.

Given a noncommutative weighted projective plane (as defined by D. R. Stephenson), we may blow it up at its “vertex” in a manner similar to that of commutative surfaces. We describe the isomorphism classes of the resulting noncommutative algebras, and relate these algebras to homogeneous coordinate rings of noncommutative rational ruled surfaces. As in the commutative case, the blow-up of a noncommutative weighted projective plane gives a noncommutative Hirzebruch surface. (Received October 02, 2000)