1047-05-97 **Luis G Serrano*** (lserrano@umich.edu), 2082 East Hall, 530 Church St., Ann Arbor, MI 48109-1043. *The shifted plactic monoid.*

We introduce a shifted analog of the plactic monoid of Lascoux and Schützenberger, the *shifted plactic monoid*. It can be defined in two different ways: via the *shifted Knuth relations*, or using Haiman's mixed insertion.

Applications include: a new combinatorial derivation (and a new version of) the shifted Littlewood-Richardson Rule; similar results for the coefficients in the Schur expansion of a Schur P-function; and a shifted counterpart of the Lascoux-Schützenberger theory of noncommutative Schur functions in plactic variables. (Received January 20, 2009)