

1089-05-88

Dylan Rupel* (d.rupel@neu.edu), Department of Mathematics, Northeastern University,
Boston, MA 02115. *Rank 2 Non-commutative Laurent Phenomenon and Positivity.*

Rank 2 cluster algebras are defined recursively using a pair of binomial exchange relations. In this talk I will generalize this construction in two directions. I will work in the fully non-commutative setting and consider polynomial generalizations of the exchange relations. My main result will be a combinatorial description of the resulting “cluster variables” which establishes a Laurent phenomenon and positivity for certain polynomial exchanges. (Received February 03, 2013)