

Mutation-Linear Algebra: The Notion of a Basis for B

Nathan Reading

North Carolina State University

The goal is to tell interested people about "mutation-linear algebra" and in particular the notion of a "basis for B ," where B is an exchange matrix (not to be confused with a basis for the cluster algebra). My motivation for thinking about mutation-linear algebra is to understand universal geometric cluster algebras. The notion also turns out to be related to the geometry of a "mutation fan" that contains the g -vector fan as a subfan (assuming standard conjectures). This mutation fan appears to be a fundamental object. I'm curious about how these notions relate to specific cluster-algebras machinery that many of you have developed.