Kiyoshi Igusa* (igusa@brandeis.edu) and Ralf Schiffler. Frieze varieties are invariant under Coxeter mutation.

We define a generalized version of the frieze variety introduced by Lee, Li, Mills, Seceleanu and the second author. The generalized frieze variety is an algebraic variety determined by an acyclic quiver and a generic specialization of cluster variables in the cluster algebra for this quiver. The original frieze variety is obtained when this specialization is (1, . . . , 1).

The main result is that a generalized frieze variety is determined by any generic element of any component of that variety. We also show that the “Coxeter mutation” cyclically permutes these components. In particular, this shows that the frieze variety is invariant under the Coxeter mutation at a generic point.

We give many examples using a technique which we call an invariant Laurent polynomial. (Received July 16, 2019)