

Eric Bucher, Michigan State University

## Recovering the Topology of Surfaces from Cluster Algebras

We present an effective method for recovering the topology of a bordered oriented surface with marked points from its cluster algebra. The information is extracted from the maximal triangulations of the surface. The method gives new proofs of the automorphism and isomorphism problems for the surface cluster algebras as well as the uniqueness of the Fomin–Shapiro–Thurston block decompositions of the exchange quivers of the surface cluster algebras. The method also explains the exceptions to these results due to pathological problems with the maximal triangulations of several surfaces.