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Eric Bucher* (ebuche2@lsu.edu<mailto:ebuche2@lsu.edu>). *Sequences of Quiver Mutations on Surfaces*

Given a marked surface (S, M) we can add arcs to the surface to create a triangulation, T , of that surface. For each triangulation, T , we can associate a cluster algebra. We will introduce how to construct a cluster algebra and quiver from this surface and then in the sense of work by Keller we will produce a maximal green sequence for this quiver. Since all finite mutation type cluster algebras can be associated to a surface, with some rare exceptions, this work along with previous work by others seeks to establish a base case in answering the question of whether a given finite mutation type cluster algebra exhibits a maximal green sequence. (Received September 29, 2015)