

1135-16-1989

Elizabeth Wicks* (lizwicks@uw.edu). *Frobenius-Perron Theory of Modified ADE Bound Quiver Algebras*. Preliminary report.

The Frobenius-Perron dimension for an abelian category was recently introduced. We apply this theory to the category of representations of the finite dimensional radical squared zero algebras associated to certain modified ADE graphs. In particular, we take an ADE quiver with arrows in a certain orientation and an arbitrary number of loops at each vertex. We show that the Frobenius-Perron dimension of this category is equal to the maximum number of loops at a vertex. Along the way, we introduce a lemma which can be applied in general to calculate the Frobenius-Perron dimension of a radical squared zero quiver algebra with loops. (Received September 25, 2017)