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**Ana Elena Berrizbeitia\*** (aberrizbeitia@coloradomesa.edu). *Invariants of Hopf actions on path algebras of quivers.*

Invariant theory has its roots in groups acting on algebraic varieties, where the goal is to describe the polynomial functions that are fixed by the group action. A classic question in the study of group actions is whether the invariant ring is finitely generated, and if so, can we find a nice description for a minimal set of generators. Actions, however, are not limited to group actions, and in this talk, we will show under which circumstances a Hopf Algebra, namely a Taft Algebra, can act on the path algebra of a quiver, extending the work of Kinser and Walton published in 2016. Furthermore, given an action where the group-like element  $g \in T(n)$  acts transitively on  $Q_0$ , we provide a description of the invariant ring of the action. (Received September 13, 2020)