

1163-13-546

Victor Fadinger* (victor.fadinger@uni-graz.at) and **Daniel Windisch** (dwindisch@math.tugraz.at). *A characterization of weakly Krull monoid algebras*. Preliminary report.

In 1981, Chouinard gave a characterization of when the monoid algebra $D[S]$ is a Krull domain in terms of properties of the domain D and the monoid S . In 2010, Chang investigated when a monoid algebra is weakly factorial (i.e. every non-zero non-unit is a product of primary elements) and in 2016, El Baghdadi and Kim proved a characterization of when a monoid algebra is generalized Krull. A domain resp. monoid is called weakly Krull, if the intersection of all localizations at height-one prime ideals is equal to the domain resp. monoid and every non-zero element is contained in only finitely many height-one prime ideals. We investigate the weakly Krull property of monoid algebras and use our result to characterize the weakly Krull domains among the affine monoid algebras.

This is joint work with Daniel Windisch. (Received September 09, 2020)