

1135-13-966

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Uniform Symbolic Topologies in Normal Toric Rings.

A Noetherian ring R has the uniform symbolic topology property (USTP) if there's an integer $D := D(R) > 0$ such that the symbolic power $P^{(DN)} \subseteq P^N$ for all prime ideals P in R and all integers $N > 0$. For instance, all excellent finite-dimensional regular rings have USTP, and a large class of isolated singularities also have USTP (Ein-Lazarsfeld-Smith, Hochster-Huneke, Huneke-Katz-Validashti, Ma-Schwede). A toric ring is a domain of finite type over a field, generated by Laurent monomials. In this talk, we present a formula for the multiplier $D(R)$ such that any normal toric ring R has USTP on the set of monomial primes: this is one of the conditional USTP results my dissertation affords for rings whose singular locus may have positive dimension. (Received September 18, 2017)