

1145-13-1424

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Robert Marshawn Walker* (robmarsw@umich.edu), 530 East Church Street, 2070 East Hall,
Ann Arbor, MI 48109. *Tensor-Multinomial Sums of Ideals and Applications*.

This is joint work with Irena Swanson found on arXiv:1806.03545. Given a polynomial ring C over a field and proper ideals I and J whose generating sets involve disjoint variables, we determine how to embed the associated primes of each power of $I + J$ into a collection of primes described in terms of the associated primes of select powers of I and of J . We discuss applications to constructing primary decompositions for powers of $I + J$, and to attacking the persistence problem for associated primes of powers of an ideal. (Received September 21, 2018)