1120-13-127   **Tai Ha*** (tha@tulane.edu). *Symbolic powers of sums of ideals.*

Let k be a field and let $A = k[x_1, \ldots, x_r]$ and $B = k[y_1, \ldots, y_s]$ be polynomial rings over k. Let $I \subseteq A$ and $J \subseteq B$ be proper homogeneous ideals. We investigate the question of how symbolic powers of the sum $I + J \subseteq R = A \otimes_k B$ can be studied via those of I and J. In particular, we give a binomial expansion of $(I + J)^{(n)}$ in terms of symbolic powers of I and J. (Received February 18, 2016)

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