

ON THE FLAG POLYNOMIAL OF MINKOWSKI SUM OF STANDARD SIMPLICES

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ABSTRACT. We define the *flag polynomial* of the Minkowski sum of k standard simplices in a direct and canonical way in terms of the k -th *master polytope* $P(k)$, where $k \in \mathbb{N}$. This is related to the well-known flag vector, but it has some nice algebraic properties that can be used to obtain explicit formulae. As a special case we obtain as a corollary a formula of the f -polynomial of the general Minkowski sum.

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