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Zhongshan Li* (zli@gsu.edu), **Fuzhen Zhang** and **Xiaodong Zhang**. *On the number of vertices of the stochastic tensor polytope.*

This talk is devoted to the study of lower and upper bounds for the number of vertices of the polytope of $n \times n \times n$ stochastic tensors (all of whose entries are nonnegative real numbers and the sum of entries in every line is 1). By using known results on polytopes (i.e., the Upper and Lower Bound Theorems), we present some new lower and upper bounds. We show that the new upper bound is tighter than the one recently obtained by Chang, Paksoy and Zhang, and also sharper than the one by Linial and Luria. We demonstrate that the analog of the lower bound obtained in such a way, however, is no better than the existing ones. (Received September 19, 2016)