1146-15-49   **Richard A. Brauldi** and **Lei Cao*** (`leicaomath@gmail.com`), Lakewood, NJ 08701. *The extreme points of certain polytopes.*

We investigate convex polytopes of doubly stochastic matrices having special structures: symmetric, Hankel symmetric, centrosymmetric, and both symmetric and Hankel symmetric. We determine dimensions of these poly- topes and classify their extreme points. We also determine a basis of the real vector spaces generated by permutation matrices with these special structures. (Received January 02, 2019)