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Craig Kleski* (ckleski@virginia.edu). *Extreme points of some noncommutative convex sets.*

Recent results on boundary representations for separable operator systems yield new information about extreme points for matrix convex sets associated to such operator systems. For a matrix convex set K , we introduce a new notion of extremeness for K that corresponds exactly to the boundary representations for the associated operator system $A(K)$, when $A(K)$ is in a matrix algebra. In this case, we can improve the Webster-Winkler Krein-Milman theorem. We also show how boundary representations are related to Morenz's Krein-Milman theorem for compact C^* -convex sets in M_n . (Received September 25, 2012)