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Roman Sznajder* (rsznajder@bowiestate.edu), Department of Mathematics, Bowie State University, Bowie, MD 20715-9465. *A norm P-property for linear transformations on Euclidean Jordan algebras*. Preliminary report.

In their recent paper, Chua and Yi introduced a norm P-property, called the uniform nonsingularity property (UNS-property), of a nonlinear transformation on a Euclidean Jordan algebra and showed that this property implies the global uniqueness property (GUS-property) in the context of symmetric cone complementarity problems. In a related paper, Chua, Lin and Yi raise the question of converse. In this talk, we show that for linear transformations, UNS-property is inherited by principal subtransformations, and on simple algebras, it is invariant under the action of cone automorphisms. As a consequence, we show that on simple algebras, the UNS-property implies the so-called ultra P-property which further implies the GUS-property. Based on these results, we answer the question of Chua, Lin and Yi in the negative. (Received January 14, 2011)