1014-32-694   **Jerry R. Muir, Jr.*** (`muirj2@scranton.edu`), Department of Mathematics, University of Scranton, Scranton, PA 18510. *A modification of the Roper-Suffridge extension operator.*

The Roper-Suffridge extension operator extends a locally univalent mapping defined on the unit disk of $\mathbb{C}$ to a locally biholomorphic mapping defined on the Euclidean unit ball of $\mathbb{C}^n$. Furthermore, the extension of a one variable mapping that is either convex or starlike has the analogous property in several variables. Motivated by recent results concerning the extreme points of the family $\mathcal{K}_n$ of normalized convex mappings of the Euclidean ball in $\mathbb{C}^n$, we introduce a new extension operator that, under precise conditions, takes the extreme points of $\mathcal{K}_1$ to extreme points of $\mathcal{K}_n$. In general, we examine the conditions under which this new extension operator will take a convex or starlike mapping of the unit disk to a mapping of the same type defined on the unit ball. (Received September 22, 2005)

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