

Meeting: 1003, Atlanta, Georgia, SS 25A, AMS Special Session on Complex and Functional Analysis, I

1003-32-610 **Jerry R. Muir, Jr.*** (muirj2@scranton.edu), Department of Mathematics, University of Scranton, Scranton, PA 18510, and **Ted J. Suffridge** (ted@ms.uky.edu), Department of Mathematics, University of Kentucky, Lexington, KY 40506. *Convex mappings of the ball in \mathbb{C}^n that have a maximal real subspace in their image.* Preliminary report.

Let $B \subseteq \mathbb{C}^n$ be the Euclidean ball and define $H(B, \mathbb{C}^n)$ to be the topological vector space of all holomorphic functions from B to \mathbb{C}^n . The family $\mathcal{K} \subseteq H(B, \mathbb{C}^n)$ of all univalent mappings F , normalized by $F(0) = 0$, $DF(0) = I$, that take B onto a convex domain is compact. We consider mappings in \mathcal{K} that have a maximal real subspace in their image and their relationship to the extreme points of \mathcal{K} as a subset of $H(B, \mathbb{C}^n)$. (Received September 24, 2004)