Meeting: 1003, Atlanta, Georgia, SS 22A, AMS Special Session on Spaces of Vector-Valued Functions, I

1003-46-114 Hasan Al-Halees (hhalees@svsu.edu), Science West 343, 4700 Bay Road, Saginaw Valley State University, University Center, MI 48710, and Richard J. Fleming* (flemi1rj@cmich.edu), Department of Mathematics, Central Michigan University, Mt. Pleasant, MI 48859. Extreme operators on continuous vector-valued function spaces. Preliminary report.

On old question asks whether extreme contractions on C(K) are necessarily *nice*; that is, whether the conjugate of such an operator maps extreme points of the dual ball to extreme points. Partial results have been obtained. Determining which operators are extreme seems to be a difficult task, even in the scalar case. Here we consider the case of extreme contractions on C(K, E), where E itself is a Banach space. We show that every extreme contraction T on C(K, E) to itself which maps extreme points to elements of norm one is nice, where K is compact and E is the sequence space c_0 . (Received August 09, 2004)