

1046-Z1-1725      **Julius N Esunge\*** ([esunge@math.lsu.edu](mailto:esunge@math.lsu.edu)), Department of Mathematics, 329 Lockett Hall,  
Baton Rouge, LA 70803. *Characterization of Compactness in Classical Banach Spaces.*

In this work, we present criteria for compactness in some infinite-dimensional Banach spaces. In particular, we discuss this notion for subsets of  $C(M)$ , ( $M$  - compact),  $\ell^p$  and  $L^p$ ,  $1 \leq p < \infty$ . In each case, we state and prove conditions under which a subset of the given space is compact. (Received September 16, 2008)