A CHARACTERIZATION OF U-IDEALS IN REFLEXIVE BANACH SPACES

ZACHARY KAUNDA KAYIITA

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Zachary Kaunda Kayiita

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DECLARATION BY THE CANDIDATE

This thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

Zachary Kaunda Kayiita
SEP/G/01/09

SUPERVISORS CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology a thesis entitled A Characterization of u-ideals in reflexive Banach spaces.

1. Prof. Shem O. Aywa
Masinde Muliro University of Science and Technology

Prof. John O. Agure
Maseno University

15/11/2012
Date

15/11/2012
Date
ABSTRACT

In this thesis we show the reflexivity of a Banach space, that is spaces embedded in their biduals. The concept is realized for the case that the canonical embedding into its bidual is surjective. We characterize u-ideals in Banach spaces having reflexive properties. We show that u-ideal achieves its norm on closed unit ball and for any reflexive Banach space $X$, u-ideal is always a closed ideal. We also show that u-deal contained in Jacobson radical is a zero ring.