

## Strongly (O) - bounded operators and Daniell vector integral

Ghassan BARAKAT

June 15, 2002

**Abstract :** In this paper we introduce the definition of the strongly (o) - bounded operators and the relation between them and the Daniell vector integral . We prove that if  $T(L, Y)$  is the space of the strongly (o) - bounded operators and  $R(L, Y)$  is the space of the regular operators , then  $T(L, Y)$  is a band in  $R(L, Y)$  . We also prove that any linear and positive operator defined on a special reunion of Banach spaces with values in a space of the type (A M) ) is strongly (o) - bounded .

**Key words and phrases :** (o)-bounded operator, Daniell vector integral

**Mathematics Subject Classification (2000) :** 46A13, 46A40