

**Document Type** : Thesis  
**Document Title** : HS-Spaces

(HS) فراغات

**Document Language** : Arabic

**Abstract** : A grothndieck, a french mathematics in functional analysis, proved that a materizable locally convex space  $X$  is distinguished if and only if the strong dual of  $X$  is bornolgical. In 1975 a generalization of distinguished space was introduced. It is called a Hussain space. One the of the results proves Hussain space, which is similar to Grotheniecks result is that a Husain space  $E$  is distingushed if and only if the strong dual  $E$  if quasiberrelled. In the thesis we introduce a generalization of Husain space which we have called HS-space. We prove some results for HS-Space which are similar to Grothendiecks result. One of the results is that a HS-Space  $E$  is Hussain space if and only if the strong dual of  $E$  is countably quasibarrelled. Another results is that a HS-Space  $E$  is distinguished if and only if the strong dual of  $E$  is quassibarrelled. We also introduce sequentially HS-Space which generlized HS-spaces and prove some results

**Supervisor** : د. سيري نواس بورمير خليل الله ، د. محمد علي الغامدي

**Publishing Year** : 1998 AH