

The main topic of this thesis is separation of points and  $w^*$ -derived sets in dual Banach spaces. We show, that in duals of reflexive spaces  $w^*$ -derived set of a convex subset coincides with its  $w^*$ -closure. We also show, that subspace of a dual reflexive space is norming, if and only if it is total. Later we show, that in the dual of every non-reflexive space we can find a convex subset whose  $w^*$ -derived set is not  $w^*$ -closed. Hence, this statement is a characterisation of reflexive spaces. Next we show, that subspaces in duals of quasi-reflexive spaces are norming, if and only if they are total. Later we show, that in the dual of every non-quasi-reflexive space we can find a subspace which is total but not norming; thus, the previous statement is a characterisation of quasi-reflexive spaces. We also show, that for absolutely convex subsets of duals of quasi-reflexive spaces  $w^*$ -derived set coincides with  $w^*$ -closure. In the last section we define  $w^*$ -derived sets of higher orders and show, that in the dual of every non-quasi-reflexive separable Banach space there exist subspaces of order of each countable non-limit ordinal and no other.