

Urysohn's Lemma

Chapter 2: Positive Borel Measures

1 Urysohn's Lemma

Theorem 1 (Uryson's Lemma). Suppose X is a locally compact Hausdorff space, V is open in X , $K \subset V$, and K is compact. Then there exists an $f \in C_c(X)$, such that $K \leq f \leq V$.