

ANALYSIS SEMINAR

Geometry of $L^1(\mu)$ for vector valued measure μ

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Abstract: *Abstract. Let μ be a measure from a σ -algebra of subsets of a set T into a sequentially complete Hausdorff topological vector space X . Assume that the convex hull of the range of μ is bounded in X and denote by $L^1(\mu)$ the space of scalar valued functions on T which are integrable with respect to the vector measure μ . Sometimes a property of X is inherited by $L^1(\mu)$. I will show that the bounded multiplier property passes from X to $L^1(\mu)$. Answering a 1972 question of Erik Thomas, I will show that for a large class of F -spaces X the non containment of c_0 passes onto $L^1(\mu)$.*

Students are welcome. An attempt will be made at explaining the notions and the theory of integration with respect to a vector measure.