

Speaker: Steve Dilworth

Title: Haar Null Sets

Abstract: Although there is no Lebesgue measure in infinite-dimensional spaces, one can make sense of a property holding “almost everywhere”. We define the class of Haar null sets and establish its basic properties (hereditary and closed under translation and countable unions). The main application is a Banach space version of Rademacher’s theorem on the a.e. differentiability of Lipschitz functions.