

1135-VM-3064 **Timothy I Myers*** (timyers@howard.edu), DC. *Lebesgue Integration on a Banach Space with a Schauder Basis.*

This talk will feature the construction of a Lebesgue measure and integral on any Banach space \mathcal{B} with a Schauder basis. This theory has the advantage that the integral is computable from below as a limit of Lebesgue integrals on Euclidean space as the dimension $n \rightarrow \infty$, so that we may evaluate infinite dimensional quantities by means of finite dimensional approximation. We will discuss applications to Gaussian measure. (Received September 26, 2017)