

1145-VM-2412 **Timothy I Myers*** (timyers@howard.edu), 2400 Sixth Street NW, Washington, DC 20059.
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. Applications to Gaussian measure will be discussed. (Received September 25, 2018)