

## PROBABILITY SEMINAR

Tuesday, November 12, 2013  
3:40-4:30 PM Lockett 3815

Random Variables with Values In Nonpositively Curved Metric Spaces

Jimmie Lawson  
*Louisiana State University*

Metric spaces of nonpositive curvature (also known as  $\text{CAT}_0$ -spaces) are metric generalizations of Riemannian manifolds and have been widely studied in recent years. We review how significant parts of the basic theory of real random variables have been extended to the setting of RVs with values in such spaces. Recently Y. Lim and the presenter have used this machinery to solve a basic open problem about matrix means of positive definite matrices.