



UNIVERSITY OF CALIFORNIA RIVERSIDE

DEPARTMENT OF MATHEMATICS

COLLOQUIUM

Professor Herbert Heyer
(Univ. Tübingen)

"Bessel Random Walks of Higher Rank"

Abstract: Based on the pioneering work of J.F.C. Kingman of 1963 spherically symmetric random walks in the Euclidean space have been studied in great detail. Their limiting behavior for the time and for the dimension tending simultaneously to infinity is still of special interest to researchers in the field. Since recent work of M. Roesler and M Voit, strong laws of large number and central limit theorems can established for random walks in cones of hermitian matrices. The method of proof relies as in Kingman's work, on the Bessel convolution which in the case of a matrix cone is defined by Bessel functions of a matrix argument (C. Herz 1955). In the present talk the idea of Bessel convolutions and some applications to central limit theory will be presented.

Friday, December 3rd, 2010

Surge 284

4:10-5:00pm

Tea Time at 3:40pm