

# PONDICHERRY UNIVERSITY DEPARTMENT OF STATISTICS

Ramanujan School of Mathematical Sciences

### All Students, Research Scholars and Faculty Members are cordially invited for Expert Lecture Series Program (II) Weak convergence and Central limit theorem and Random Walks and Markov Chains Delivered By Professor B. V. Rao Adjunct Professor Chennai Mathematical Institute, Chennai

#### Schedule and Venue of the Program:

Date	Time	Venue
February 4-5, 2019	02:15 pm -03:45 pm	Seminar Hall
	Tea-Break	Dep. of Statistics, RSMS, PU
	04:00 pm-05:30 pm	

Dr. Navin Chandra (Co-ordinator) Dr. P. Tirupathi Rao (Convener and Head)

### Day-1 (04-02-2019)

#### Weak convergence and Central limit theorem

**ABSTRACT :**We start with general introduction to limit theorems, understand Weak and Strong laws of large numbers. Then we discuss the concept of weak convergence. We conclude with a proof of the Lindbergh Central limit theorem.

## Day-2 (05-02-2019)

#### **Random Walks and Markov Chains**

**ABSTRACT :** We start with a discussion of random walks and understand recurrence in one, two dimensions and transience in 3 dimensions. Then we discuss the general setup of Markov Chains, specialize to the finite state space and discuss stationary distribution. Finally, we see some applications. If time permits we shall have a brief introduction to martingales.