

COLLOQUIUM

ON SIMULATION METHODS FOR RANDOM VECTORS UNDER SPECIFIED DEPENDENCE STRUCTURE

CHUL G. PARK

11-14-13

NECKERS 156 | TIME: 3:00PM

RECEPTION IMMEDIATELY FOLLOWING IN THE MATH LIBRARY.

Abstract: Generation of dependent random variables is an important subject in studies involving repeated measurements, cluster data, clinical trials, system reliability, time series data, and so on. In non-normal case, statistical methods to analyze such data rely on asymptotic theories and their finite sample performances can be evaluated only by a simulation study. However, there is no nice way to specify the joint distribution of such dependent observations even under well specified marginal distributions and dependence measures. In this talk, first I will review basic simulation methods when distributions are completely specified. And then, some important multivariate simulation methods will be discussed for the case where only marginal distributions and correlations are specified.