**STAT 554 Assignment 1**

Q1) Write a user-defined R function to generate random numbers from Wishart distribution. Use Bartlett’s decomposion and also the simplistic approach. Compare their computational efficiencies.

Q2) Write a user-defined R function to generate random numbers from Rayleigh distribution using the inverse transform algorithm. Validate that your algorithm really generates random numbers from the targeted distribution.

Q3) Write a user-defined R function to generate random numbers from Triangular(0,m,1) distribution using acceptance-rejection method. Compare the computational efficiencies of the algorithms when the envelope is a) Uniform distribution or b) Beta distribution.