

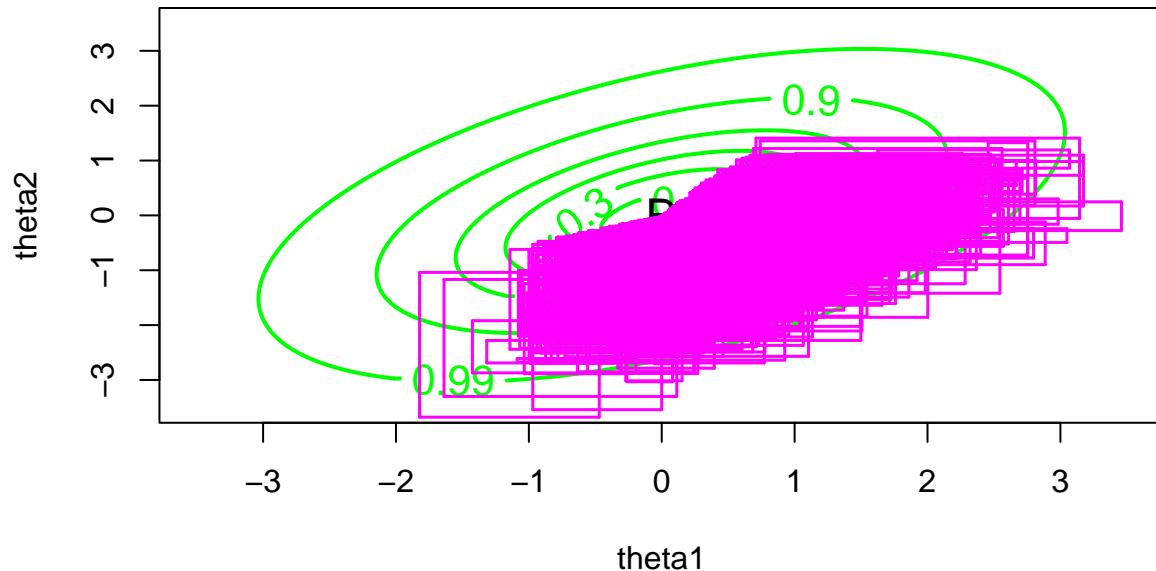
HW2_7751512

Fabio Enrico Traverso

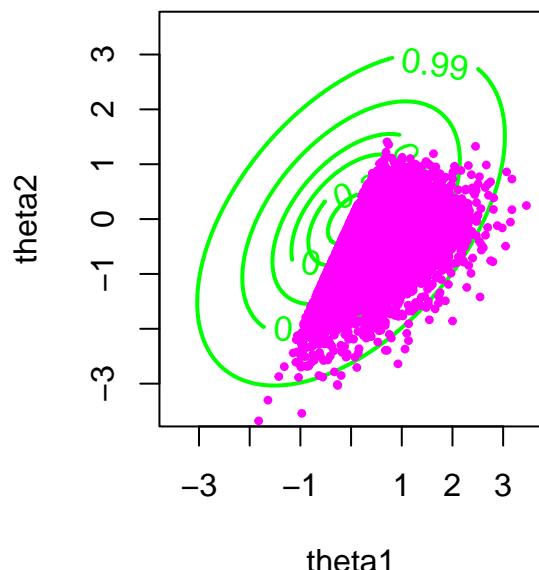
2022-11-23

Question 1

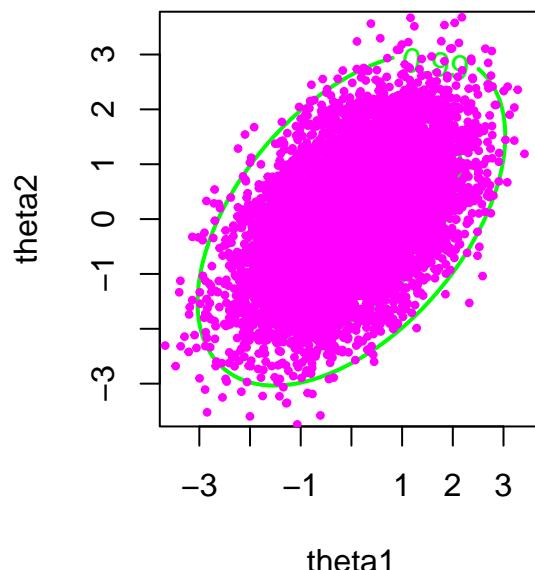
TruncGibbs Sampler with Intermediate Moves: Rho = 0.5



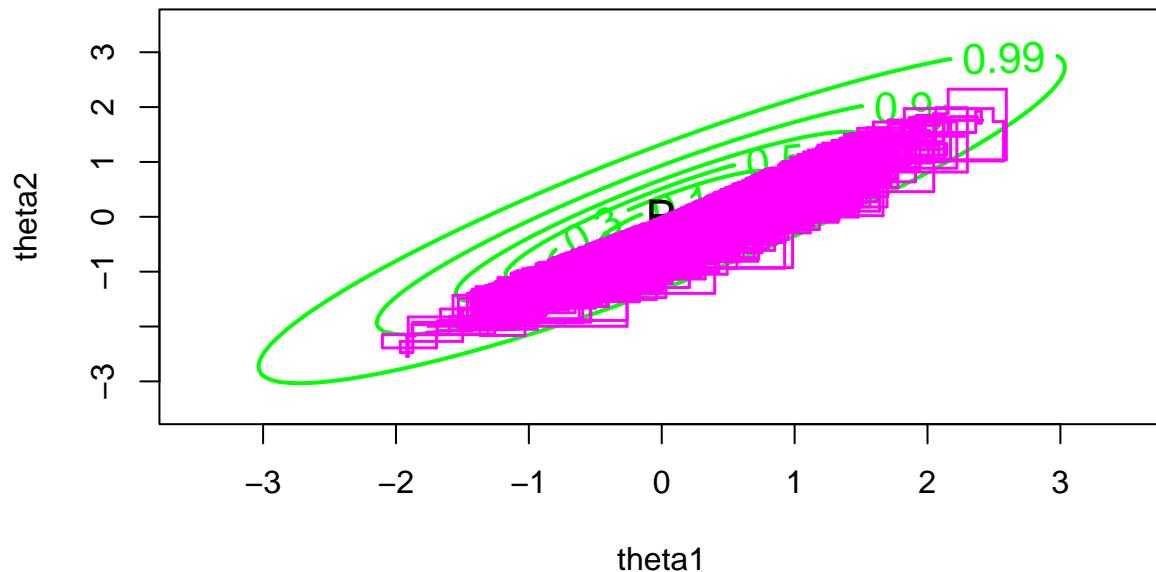
Gibbs Draws: Rho = 0.5



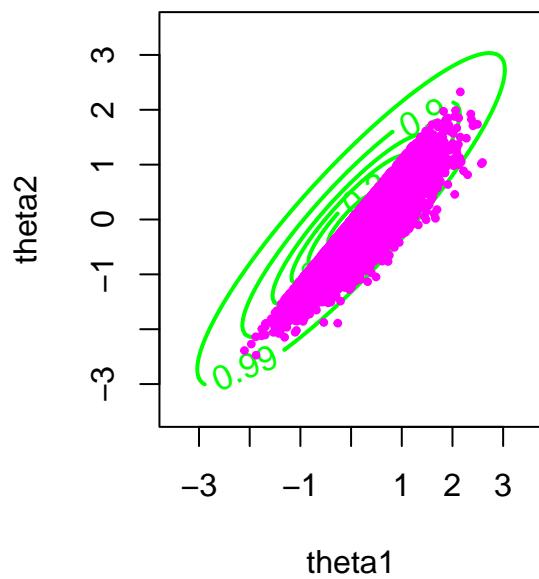
IID draws: Rho = 0.5



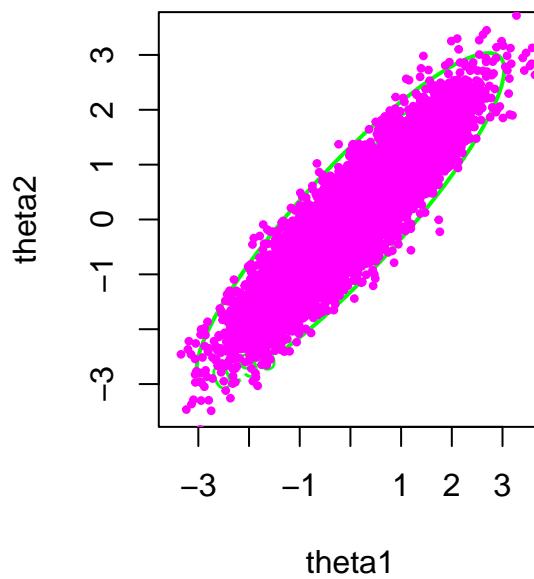
TruncGibbs Sampler with Intermediate Moves: Rho = 0.9



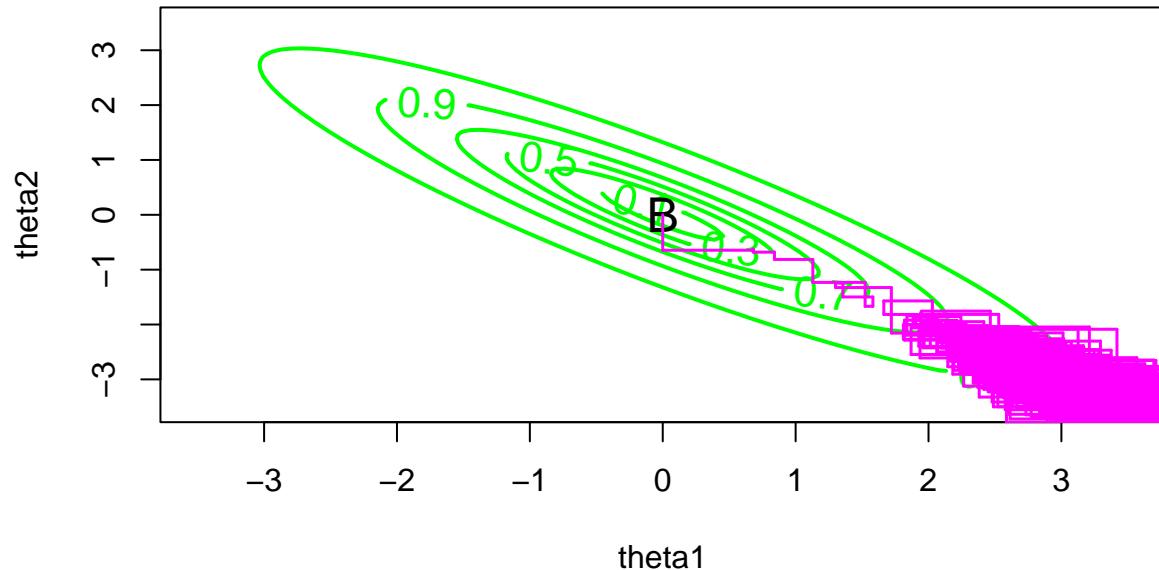
Gibbs Draws: Rho = 0.9



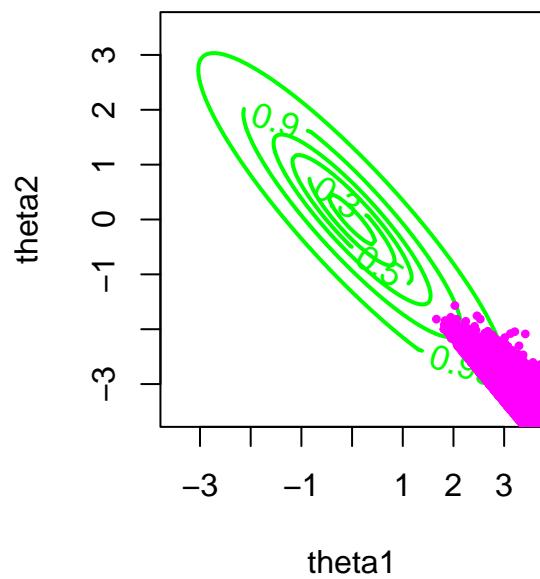
IID draws: Rho = 0.9



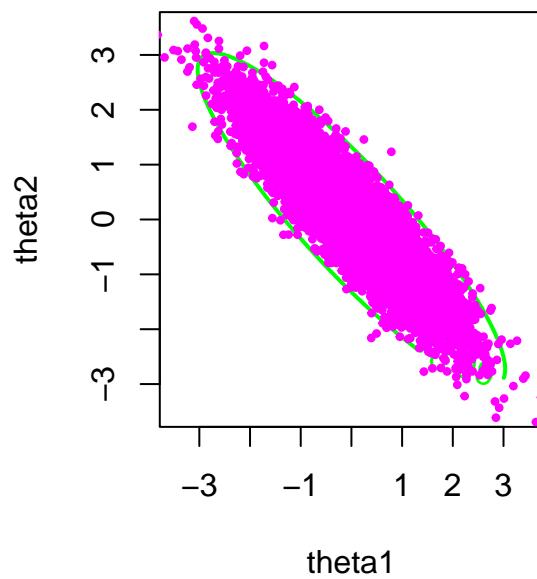
TruncGibbs Sampler with Intermediate Moves: Rho = -0.9



Gibbs Draws: Rho = -0.9

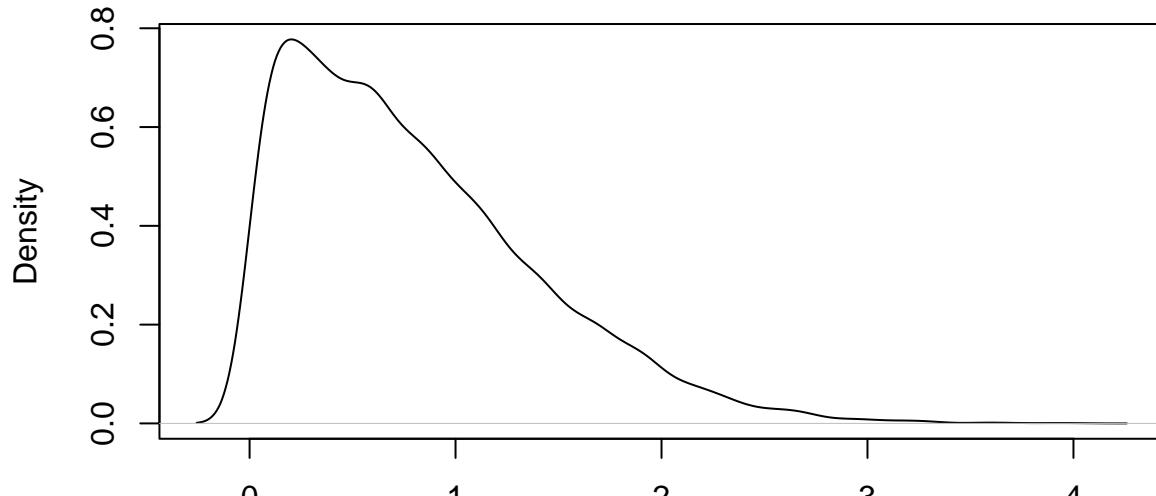


IID draws: Rho = -0.9



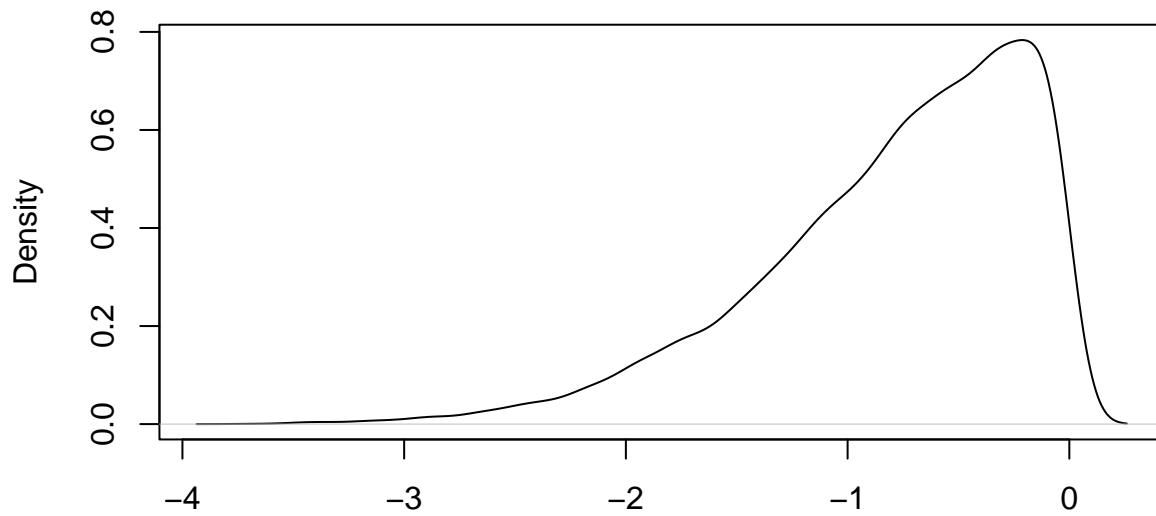
Question 2

density.default(x = rejection_sample\$X1)



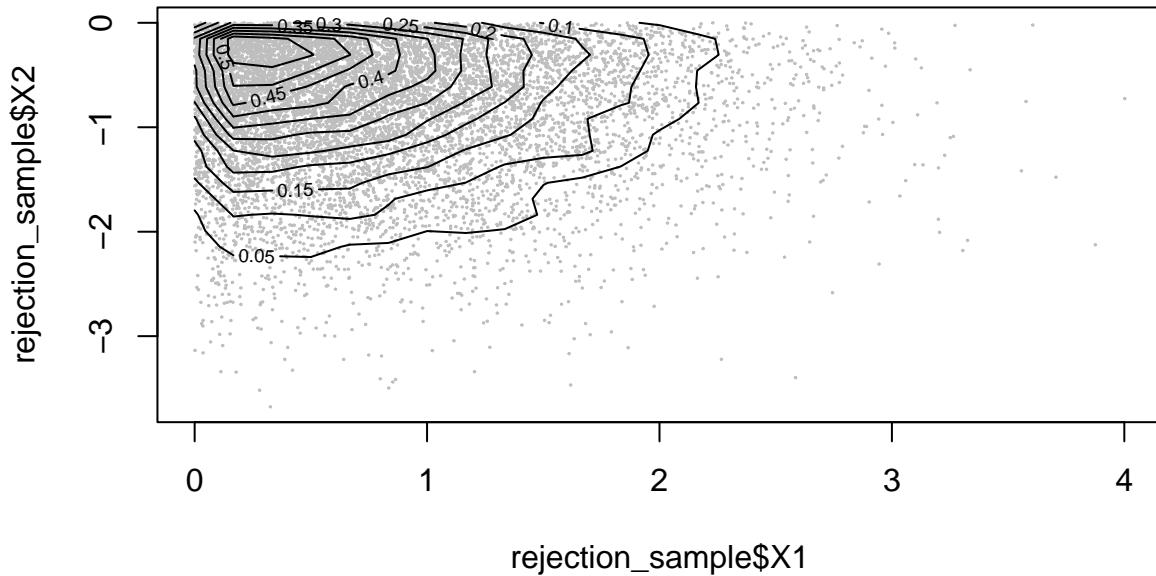
N = 10000 Bandwidth = 0.08566

density.default(x = rejection_sample\$X2)

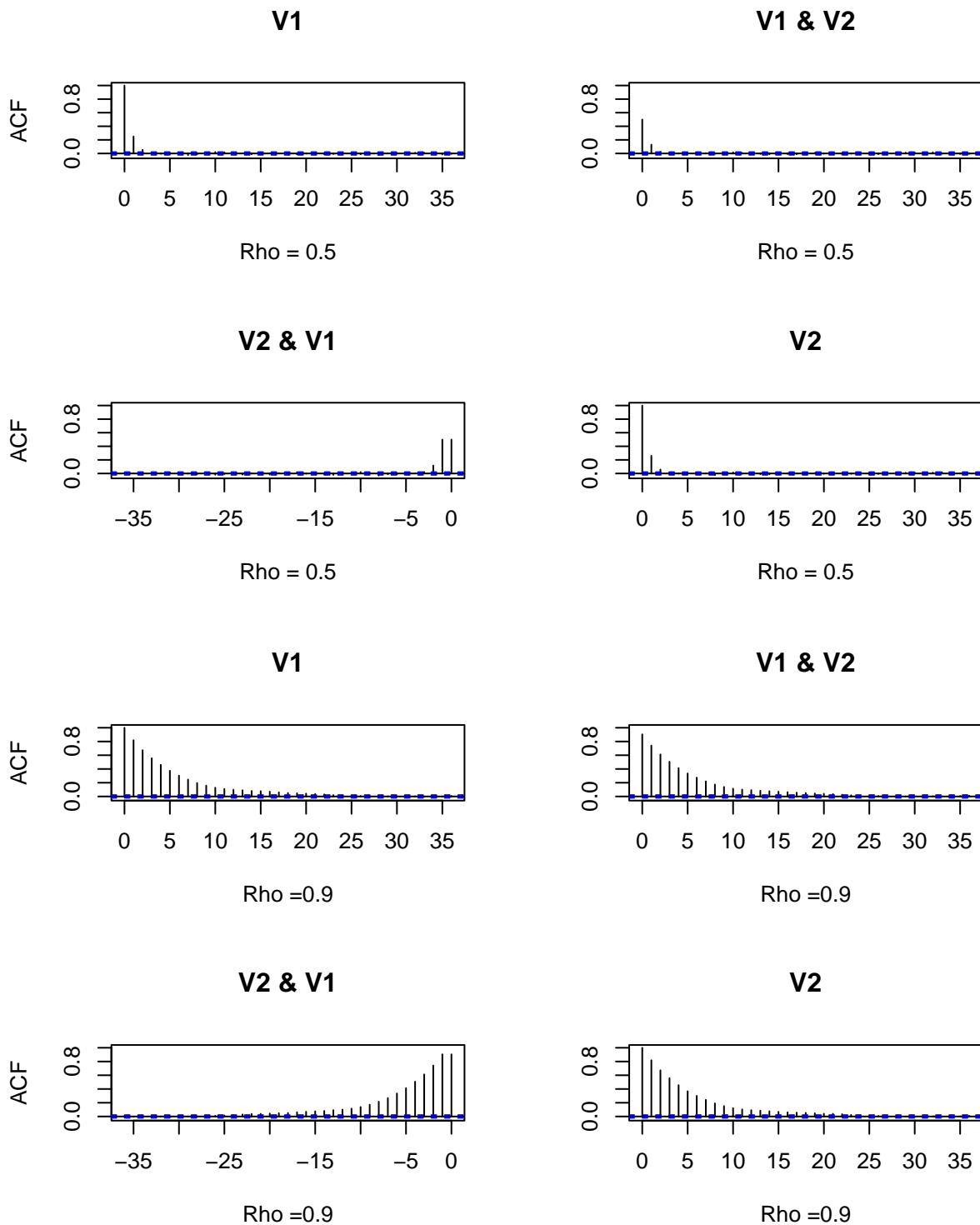


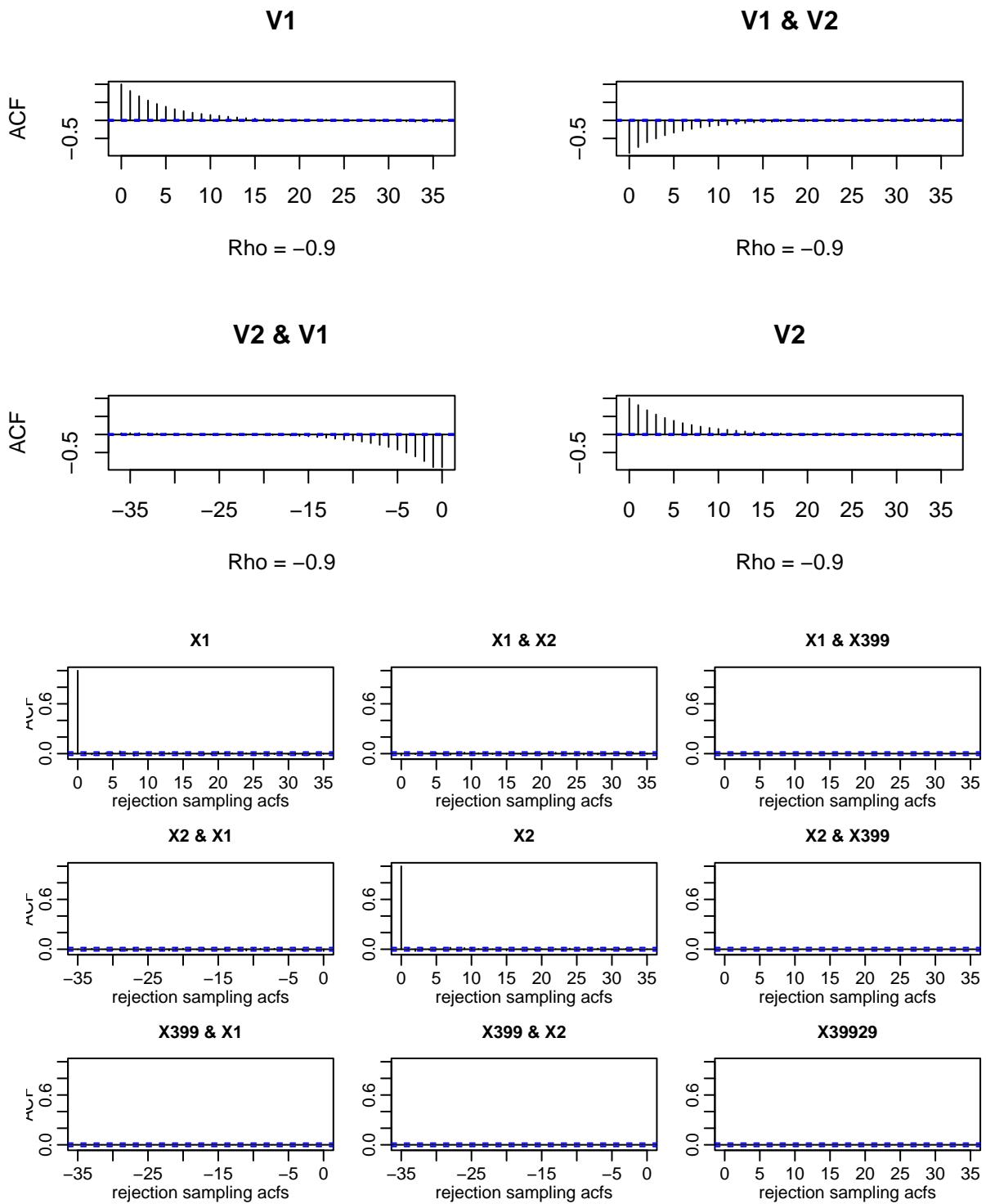
N = 10000 Bandwidth = 0.08646

Joint density of draws



Question 3





The autocorrelation functions of the sample clearly depend on the correlation that we impose in Question 1.