## Week 4 Assignmen: Markov Chain Monte Carlo

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Explore bivariate normal distribution density using MCMC.

## 1 Bivariate normal distribution

```
Set parameters of bivariate normal distribution <\mu_1,\mu_2,\sigma_1,\sigma_2,\rho> myDenParams <- c(1, 1, 5, 5, .8)
```

Create a function den<-function(argmts,params), where argmts is vector  $\langle x_1, x_2 \rangle$  and params is vector of distribution parameters  $\langle \mu_1, \mu_2, \sigma_1, \sigma_2, \rho \rangle$  implementing formula for bivariate normal distribution density