

The purpose of this assignment is to help you see the variation of empirical semivariograms. Simulate at least 5 independent copies of a Gaussian stationary process with mean 0 and the isotropic covariogram with sill 1 and range parameter 0.2:  $C(h) = \exp(-h/0.2)$ . The sampling locations are  $(i/10, j/10)$ ,  $i, j = 1, \dots, 10$ . For each simulated data set, calculate the empirical semivariogram and compare it with the true semivariogram by plotting the true semivariogram and the empirical ones together. What can you conclude from the simulation? Comment particularly how reliable the visual comparison can be.