

MTHSTAT 564/564G/764–Time Series Analysis Spring 2024 Problem Solving Set 1

Please think about the following problems from the textbook in advance of our problem solving sessions on them:

Problem Solving 1

1. Simulate a completely random process of length 120 with independent, chi-squared distributed values, each with two degrees of freedom. Display the time series plot. Does it look “random” and non-normal? Repeat this exercise four times with a new simulation each time.
2. Simulate a completely random process of length 100 with independent, t-distributed values each with five degrees of freedom. Construct the time series plot. Does the series look completely “random” and non-normal? Repeat this exercise four times with a new simulation each time.