

ACMA 490/820 Stochastic Analysis of Insurance Portfolios

Assignment 1

The file “Acma820_2017 data hw1.csv” contains 1000 observations of an AR(1) time series.

- 1- Fit an AR(1) model to the data by implementing the least square method presented on page 10 of the lecture notes.
- 2- Fit an AR(1) model to the data using a package.
 - The “stats” package in R contains a function called “arima”
 - The “tseries” package in R contains a function called “arma”
 - R documentation is available to learn about the “arguments” used by these functions
 - Similar functions exist in MathLab
- 3- Compare the fitted models.

You will be asked to work with a different time series in class on January 31.