**MAE 5870 – ANÁLISE DE SÉRIES TEMPORAIS**
**1º. Semestre/2023**

**Prova 1**

começa no dia 27/05 às 7:00 e termina no dia 28/05 às 12:00.

1. Fit a seasonal ARIMA model of your choice to the data in column **C** of your series. Use the estimated model to forecast the next 12 months (for monthly data) or the next **four** quarters (for quarterly data). Model fit consists of the following steps:

    - plotting the data,
    - possibly transforming the data,
    - identifying the dependence orders of the model,
    - parameter estimation,
    - diagnostics, and
    - model choice.

Justify each step of your choice.

2. Fit the regression model with autocorrelated errors for data in column **F** and **G** of your series. Use CCF and lag plots to identify lagged variables. Discuss your results.