

# Time series analysis and forecasting

Master in Big Data Analytics

Midterm Project: Univariate Time-Series and ARIMA Models

Deadline: February 25th, 2024, at 22:00 (no delays are allowed)

Upload to Aula Global: notebook (.Rmd and .html) and data

# Tasks and evaluation:

Apply forecasting tools to an open dataset characterized by time series (at least 2)

- ① Data preprocessing (NAs, normalization, outliers, etc.) and visualization (trends, patterns, etc.): 2 points
- ② Statistical Analysis (tests, acf, pacf, performance, etc.): 2 points
- ③ Model Selection and Justification: 3 points
- ④ Prediction Intervals: 1 point
- ⑤ Interpretation and conclusions (accuracy and reliability of your forecasts, potential limitations, and the implications of your findings): 1 point

**Important:** you can take inspiration from other notebooks but you need to cite always the source