

# Lab 9+10 Time Series Analysis

The name, username and photo associated with your Google account will be recorded when you upload files and submit this form. Not **claudia.antunes@tecnico.ulisboa.pt**? [Switch account](#)

## Data Profiling

Provide a maximum of 5 image files (<=1M in size each) for profiling each datafile, and supporting the answers to the following questions .

### Question 1 - Distribution

The best description for the distribution of values observed for...

	Uniform	Normal	Exponential	None of previous
covid19 is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
deaths is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Question 2 - Stationarity

The series are stationary?

	Stationary	Non-stationary
covid19 is...	<input type="checkbox"/>	<input type="checkbox"/>
deaths is...	<input type="checkbox"/>	<input type="checkbox"/>



### Question 3 - Granularity

The best granularity for...

	daily	weekly	monthly	quarterly	yearly	none of previous
covid19 is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
deaths is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Question 4

Choose the True statements.

- ☐ Both series have the same dimensionality.
- ☐ Both series are in the same granularity.
- ☐ covid19 is an accumulated series, meaning its values are always increasing and each observation is the sum of all previous ones.
- ☐ The subtraction of one series to the other allows for discovering the number of additional deaths in 2020.

### COVID-19 Profiling

[Add file](#)

### DEATHS\_PT Profiling

[Add file](#)

[Back](#)

[Next](#)



Never submit passwords through Google Forms.

# Lab 9+10 Time Series Analysis

The name, username and photo associated with your Google account will be recorded when you upload files and submit this form. Not **claudia.antunes@tecnico.ulisboa.pt**? [Switch account](#)

## Data Transformation

Provide a maximum of 5 image files (<=1M in size each) for profiling each datafile, and supporting the answers to the following questions.

### Question

Which are the most adequate operations to apply to each file for discovering the number of additional deaths in 2020.

	smoothing	aggregation (reducing granularity)	differencing	change of space	none
covid-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
deaths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### COVID-19 Transformation

 [Add file](#)

### DEATHS Transformation

 [Add file](#)

[Back](#)[Next](#)

# Lab 9+10 Time Series Analysis

The name, username and photo associated with your Google account will be recorded when you upload files and submit this form. Not **claudia.antunes@tecnico.ulisboa.pt**? [Switch account](#)

## Forecasting

Predict the number of deaths in Portugal

### DEATHS 2019

Train a predictor with ARIMA using all data from past years, to predict weekly deaths for 2019. Submit the chart showing the prediction.

 [Add file](#)

### DEATHS 2020

Train a predictor with ARIMA using all data from past years, to predict weekly deaths for 2020 (just until the first week of December).. Submit the chart showing the prediction.

 [Add file](#)

### DEATHS Dec 2020

Using the predictor trained in the previous task, predict the number of deaths for the remaining weeks of 2020, only using the data available in the deaths\_pt file. Submit the chart showing the prediction.

Your answer



Evaluation

Report the RMSE for the predictors trained...

	< 1000	1000 <= x < 5000	5000 <= x < 10000	>= 10000
2019 predictor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2020 predictor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back

Next

Never submit passwords through Google Forms.

This form was created inside of Instituto Superior Técnico. [Report Abuse](#)

Google Forms



# Lab 9+10 Time Series Analysis

The name, username and photo associated with your Google account will be recorded when you upload files and submit this form. Not **claudia.antunes@tecnico.ulisboa.pt**? [Switch account](#)

## Motif Discovery

Using the original data from covid-19 file, find the 10 best motifs.

### Motifs COVID-19

Submit one single chart showing the original data and each one of the motifs found.

 [Add file](#)

☐ Send me a copy of my responses.

[Back](#)

[Submit](#)

Never submit passwords through Google Forms.

This form was created inside of Instituto Superior Técnico. [Report Abuse](#)

Google Forms

