otpod Documentation

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CHAPTER

ONE

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1.1 Documentation of the API

This is the user manual for the Python bindings to the otpod library.

1.1.1 Data analysis

UnivariateLinearModelAnalysis	Linear regression analysis with residuals hypothesis tests.

UnivariateLinearModelAnalysis

class **UnivariateLinearModelAnalysis** (**args*)

Linear regression analysis with residuals hypothesis tests.

Available constructors

UnivariateLinearModelAnalysis(*inputSample, outputSample*)

UnivariateLinearModelAnalysis(*inputSample, outputSample, noiseThres, saturationThres, resDistFact, boxCox*)

Parameters **inputSample** : 2-d sequence of float

Vector of the defect sizes, of dimension 1.

outputSample : 2-d sequence of float

Vector of the signals, of dimension 1.

noiseThres : float

Value for low censored data. Default is None.

saturationThres : float

Value for high censored data. Default is None

resDistFact : openturns.DistributionFactory

Distribution hypothesis followed by the residuals. Default is openturns.NormalFactory.

boxCox : bool or float

Enable or not the Box Cox transformation. If boxCox is a float, the Box Cox transformation is enabled with the given value. Default is False.

run ( )
Run the analysis :

- •Compute the Box Cox parameter if boxCox is True,
- •Compute the transformed signals if boxCox is enabled,
- •Build the univariate linear regression model on the data,
- •Compute the residuals,
- •Run all hypothesis tests.

1.1.2 POD model

UnivariateLinearRegressionPOD	doc

UnivariateLinearRegressionPOD

class **UnivariateLinearRegressionPOD** (**args*)
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run ( )
Bla bla bla

Parameters **sdfs** : float
dfsdf

oko : bool
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1.2 Examples

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