Validation of the module DataAnalytics

Summary:

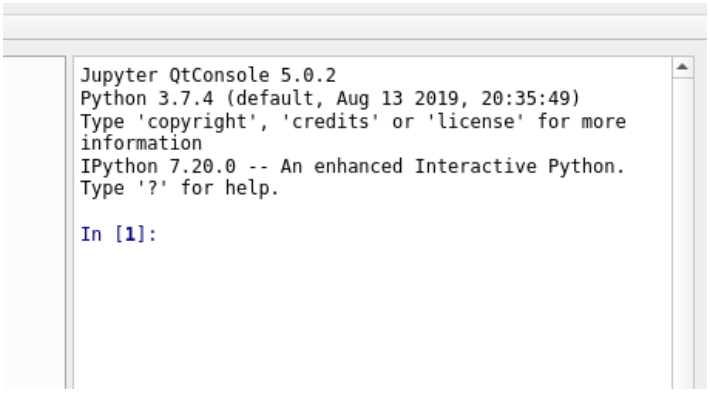
Card of validation of the operation of the module DataAnalytics.

Contents

1 Jupyter console

- To launch the module DataAnalytics.
- To check that the Ju consolepyfor the third time QtEmbarked console is visible.
- If it is not the case, to click on File > Console.

⇒ The console. Embarked Jupiter Console appears.



- To press on the Ctrl keys + J.

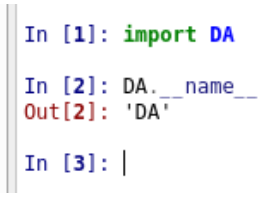
⇒ The console. Embarked Jupiter Console disappears.

- To press on the Ctrl keys + J.

⇒ The console. Embarked Jupiter Console appears.

- To type “importation DA” in Jupyfor the third time QtConsole and to press “Entered”.
- To type “DA. __name” and to press “Entered”.

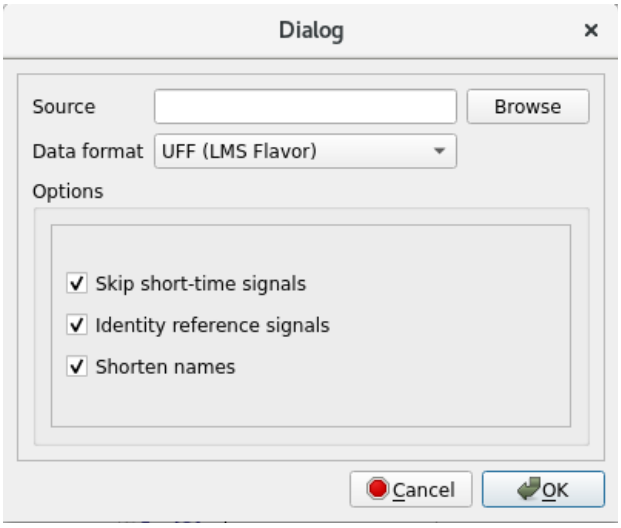
⇒ It appears ‘DA’ in Jupyter QtConsole.



2 To plot curves

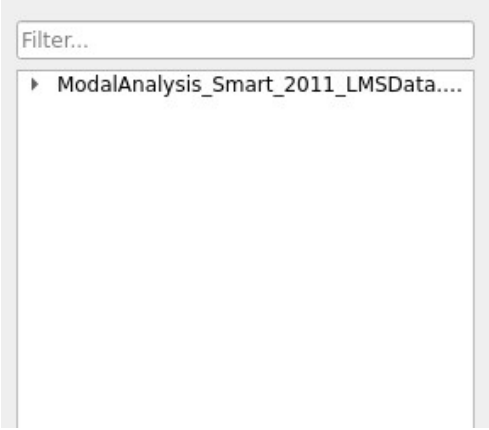
- To click on File > Load Dated.

⇒ The window of selection of the data appears.



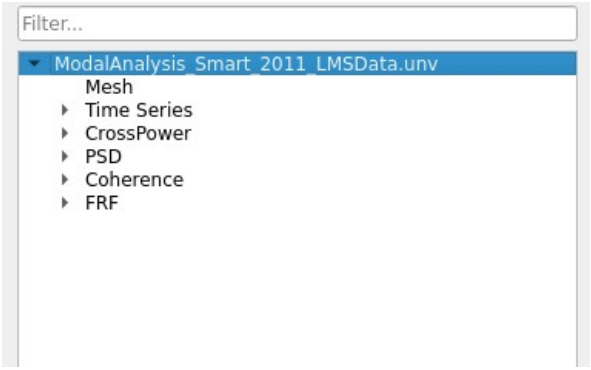
- To click on “Browse” and to surf until “tests/dated” and to select the ModalAnalysis_Smart_2011_LMSData.unv file. To click on “Open” then “OK”.

⇒ The data appear in the tree, on the left part of the screen.



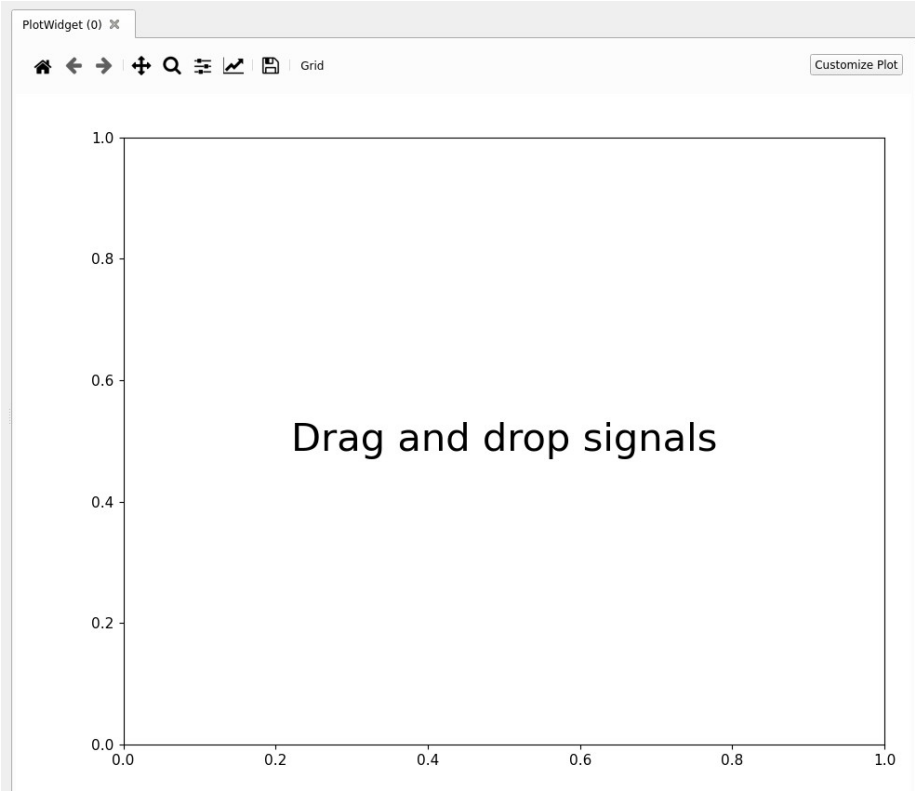
- To click on the small triangle on the left of “ModalAnalysis_Smart_2011_…”.

⇒ The data are spread in the tree.



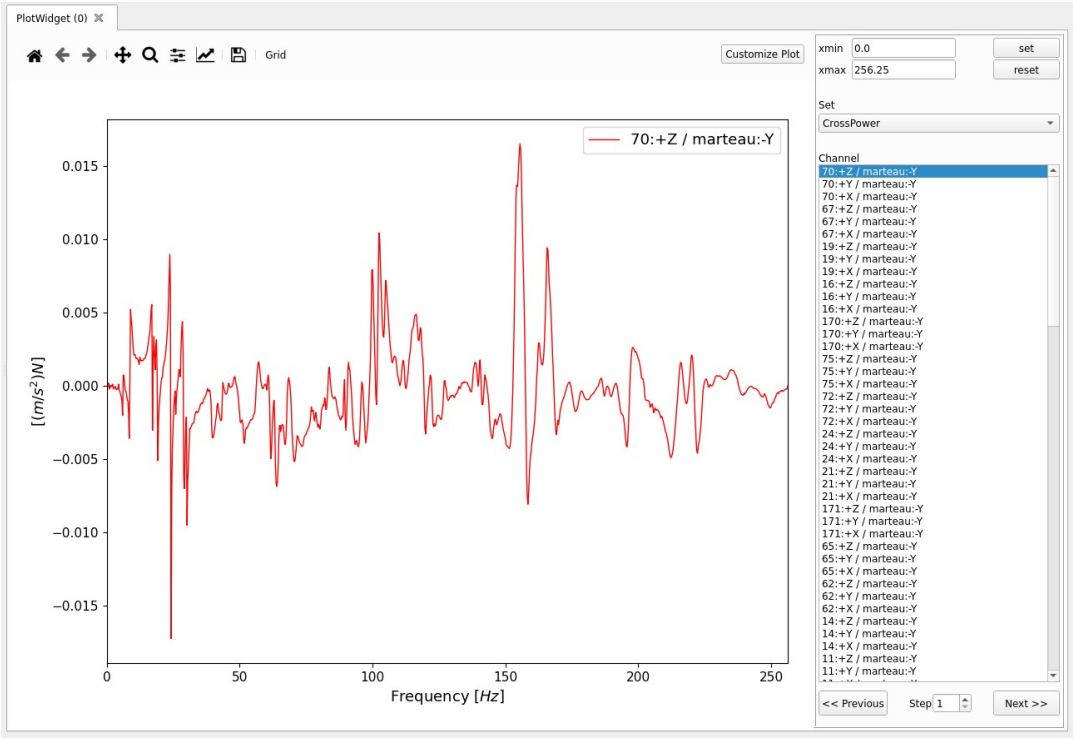
- To click on Tools > Stud.

⇒ The widget of layout of curves appears in the principal window.



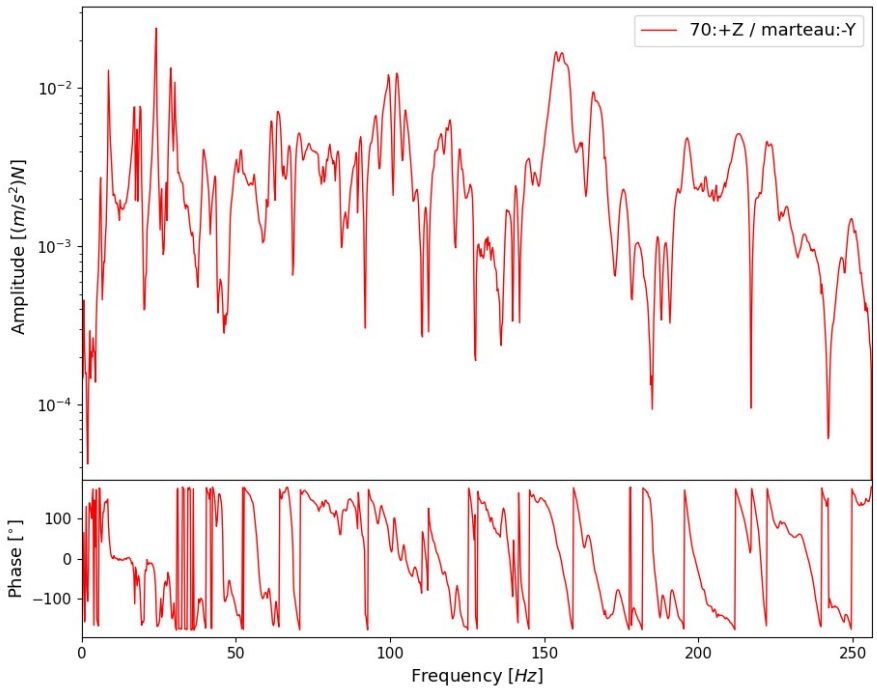
- To select the entry “CrossPower” in the tree of the data and made slip it into the widget of marrow layout, at the place where “Drag and drop signals” is written.

⇒ The curves appear in the chart window and the list appears in the drop-down list entitled “Chanel”.



- To click with the right button of the mouse in the chart window and to choose in the drop-down list “Time/Freq”.
- To click with the right button of the mouse in the chart window and to choose in the drop-down list “Y flax/log”

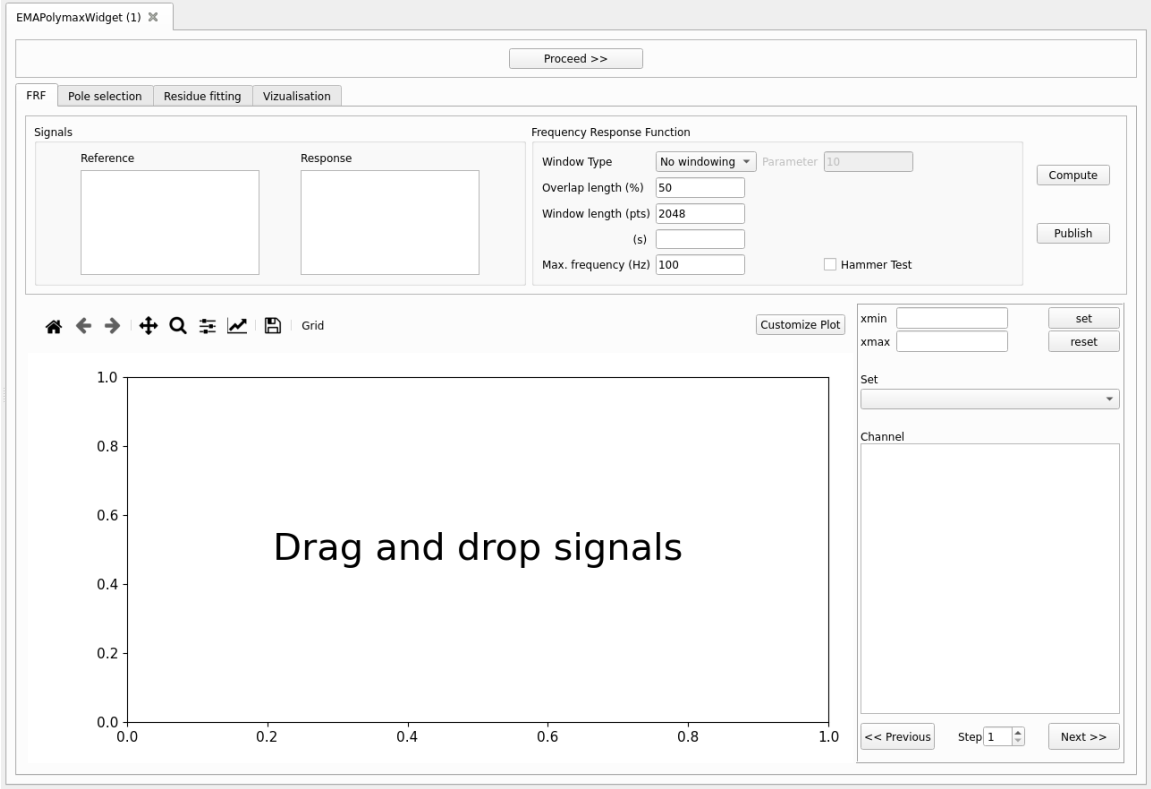
⇒ The layout becomes a diagram Amplitude/Phase where the amplitude is in logarithmic scale.



3 Experimental modal analysis

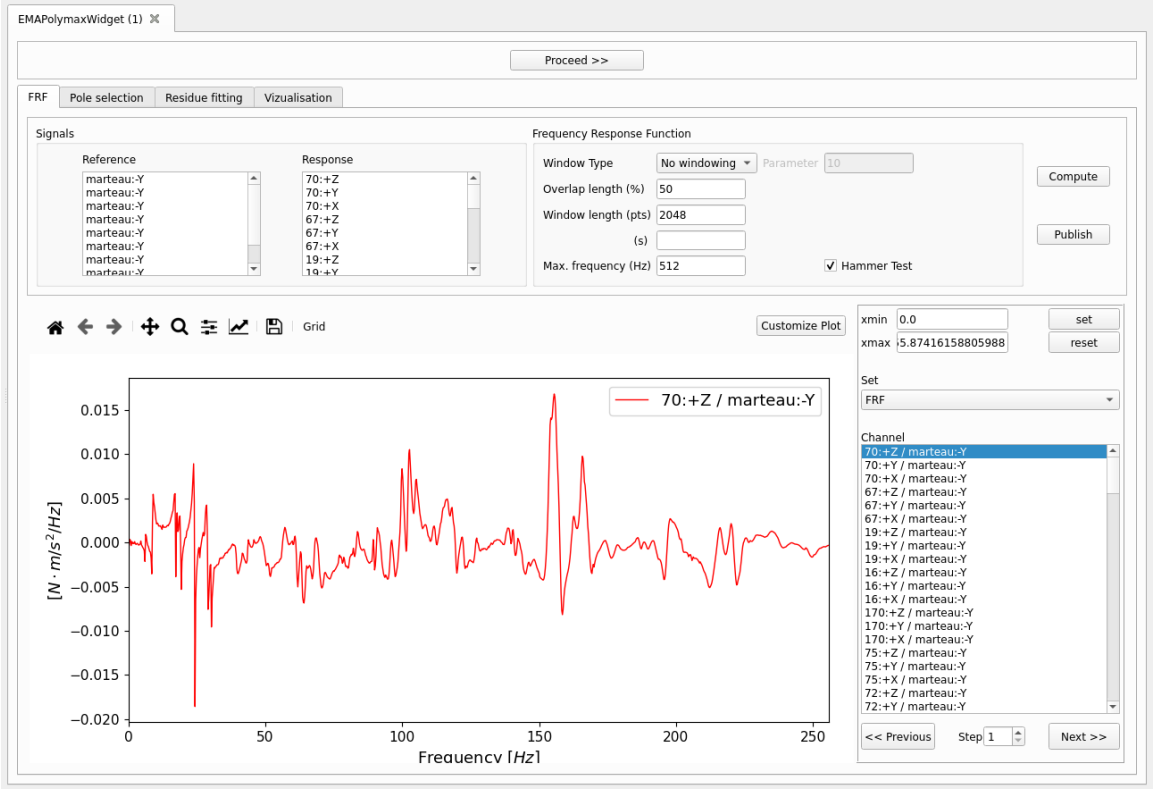
- To select in small Tools > Modal Analysis > Experimental Modal Analysis - Polymax

⇒ The Experimental widget Modal Analysis – Polymax appears in the principal window.



- To click on CheckBox “Hammer Test” of the widget.
- To write “mart” in the window of text where “Filter” is written in grayed.
- To select the TimeSeries entry of the tree and to make it slip into the window “Reference”.
- To write “^ (?! mart)” in the window of text where “Filter” is written in grayed.
- To select the TimeSeries entry of the tree and to make it slip into the window “Answer”.
- To click on the button “Compute”

⇒ The response curves in frequency appear in the chart window.

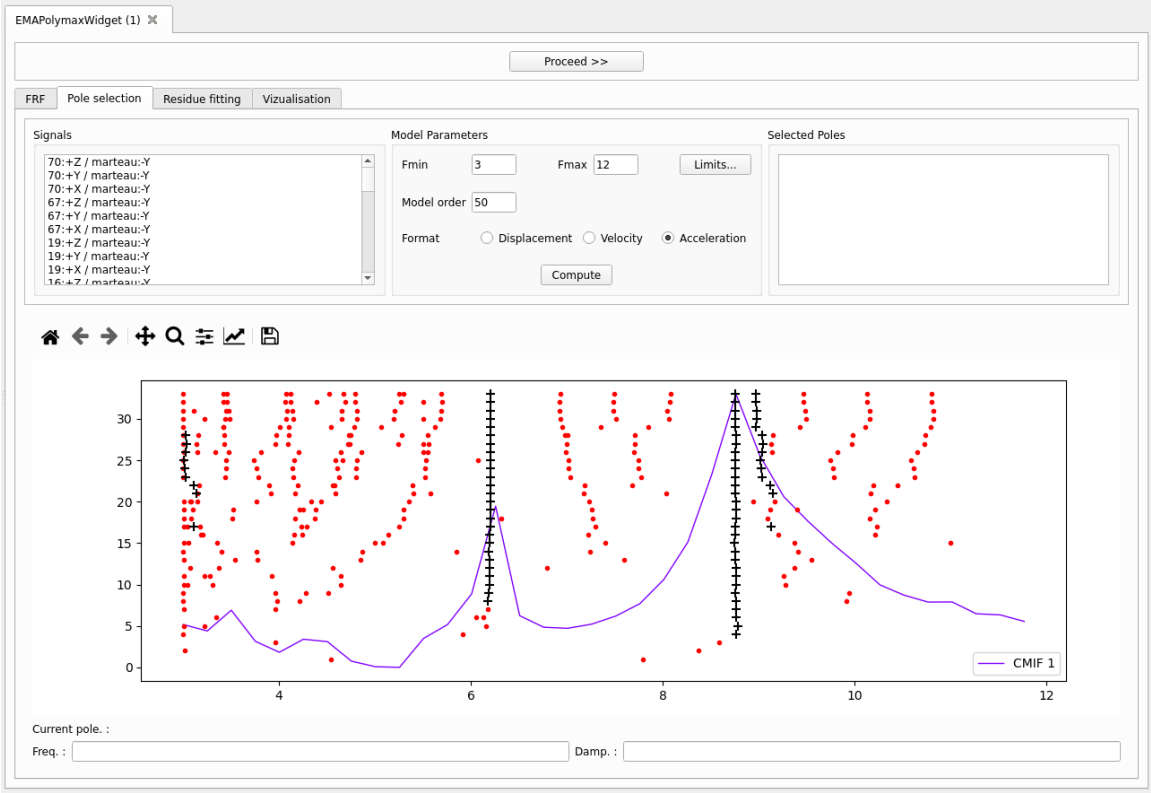


- To click on the button “Proceed”

⇒ The second mitre entitled “Pole selection” appears.

- To inform 3 in the box “Fmin”.
- To inform 12 in the box “Fmax”.
- To select “Acceleration” on the line “Format”.
- To click on “Compute”.

⇒ A graph with a mauve curve, red points and black crosses appears.

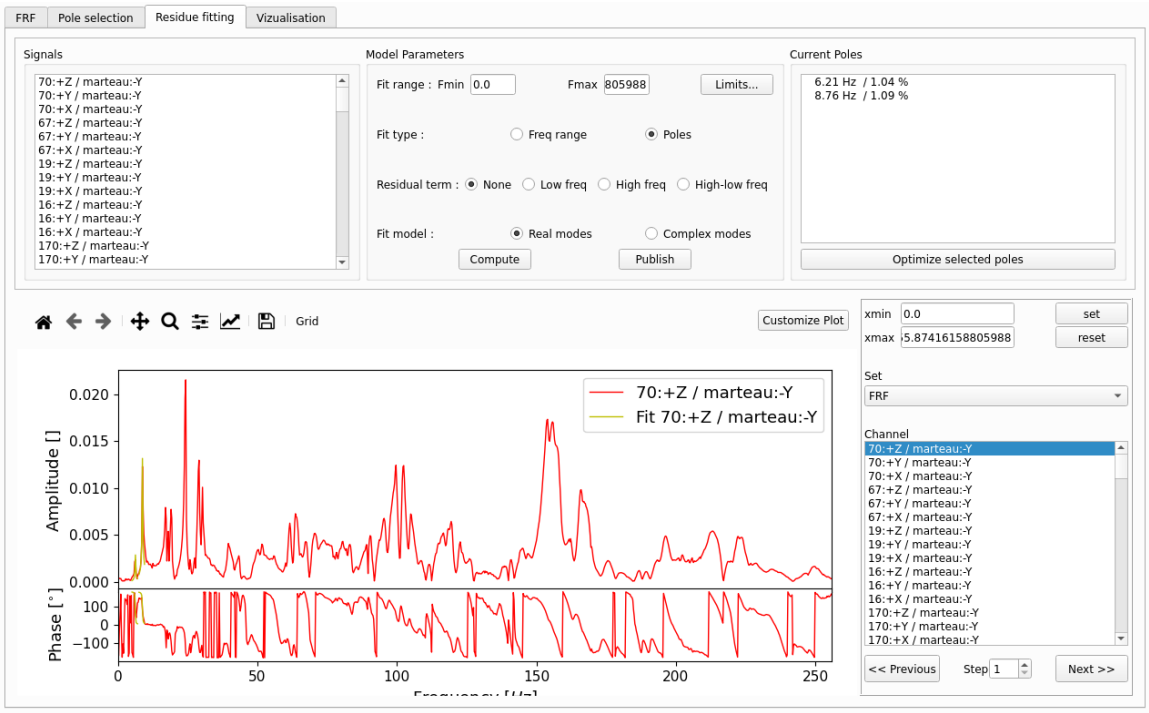


- The mauve curve presents 2 peaks with 2 lines of black crosses. To place the mouse on one of the crosses of the first peak, to click with the button of right-hand side and to click on “Add Pole”.
- To make in the same way on one of the black crosses of the 2nd peak.

⇒ The frequencies and depreciation of the selected poles appear in the window “Selected Poles”.

- To click on “Proceed”.
- To click on “Compute”.

⇒ The calculated modal answers appear in the chart window.



- To click on “Proceed”.
- In the tree, to select the object “Mesh” and to make it slip on the blue bottom of the new window.

⇒ The grid of the studied structure appears in the window of Viewer.