Measurements

March 11, 2022

1 PARAMETERS

```
Sample name: ES.PVDF.003
Duration of measurements: 4.29 [s]
Load resistance: 2.00e+04 [Ohms]
Circuit resistance: 2.00e-01 [Ohms]
Number of periods displayed: 3
Maximum frequency for analysis: 200
```

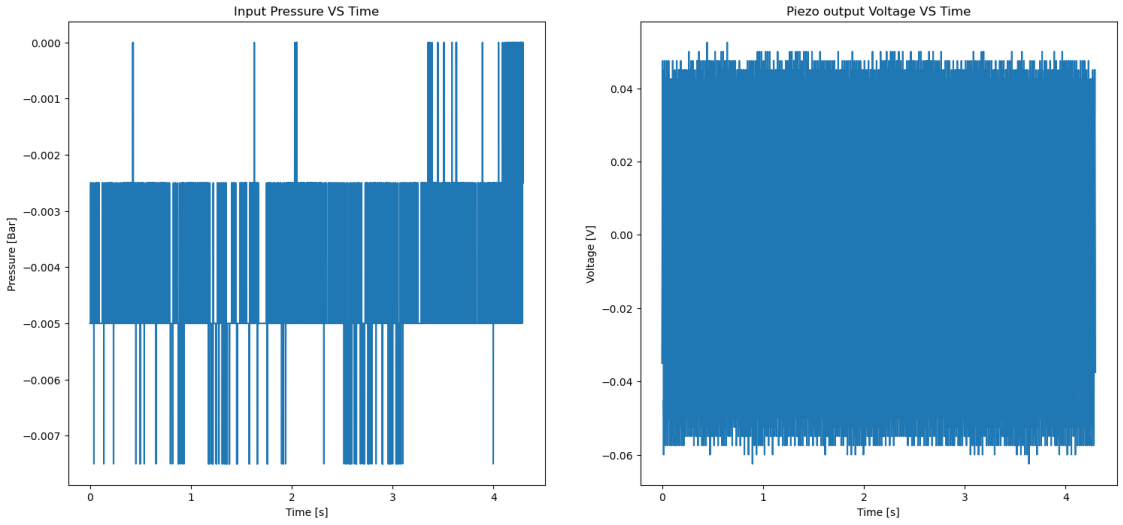
```
parameter(value=5.0, continuous_update=True, description='Duration [s] :',␣
↪max=30.0, step=0.1)
```

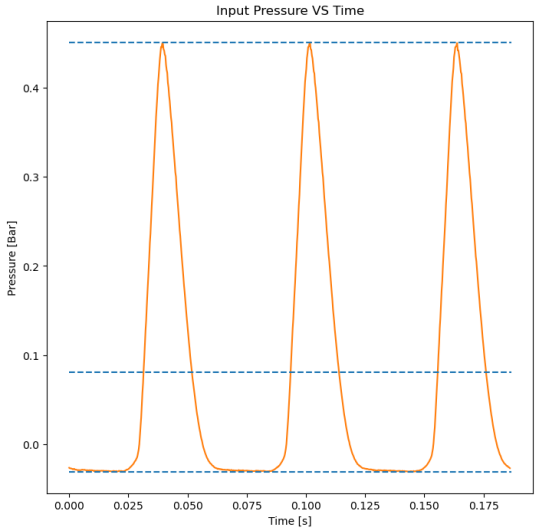
```
parameter(value=100.0, continuous_update=True, description='Rload [$\\Omega$] :
↪', max=1000000000.0, step=1.0)
```

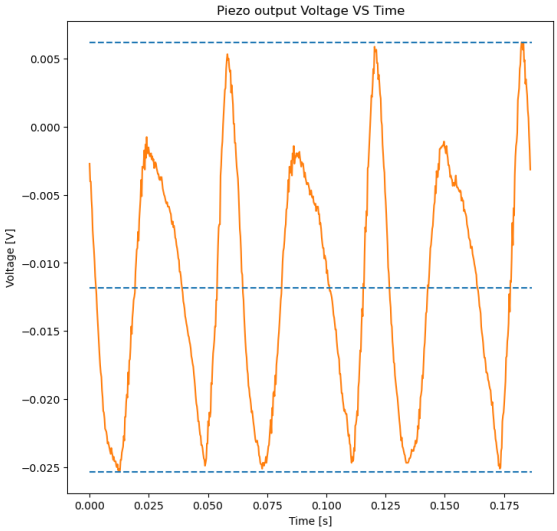
```
parameter(value=5.0, continuous_update=True, description='Nb Cycles [1] :',␣
↪max=1000000000.0, step=1.0)
```

2 PRESSURE AND VOLTAGE MEASUREMENTS

```
The input frequency is: 50.06 Hz
```

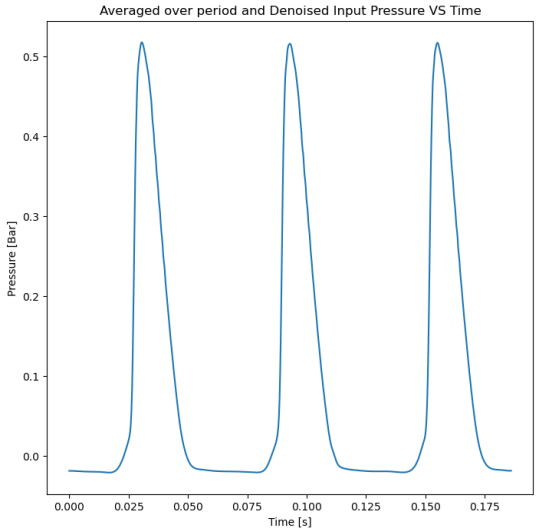


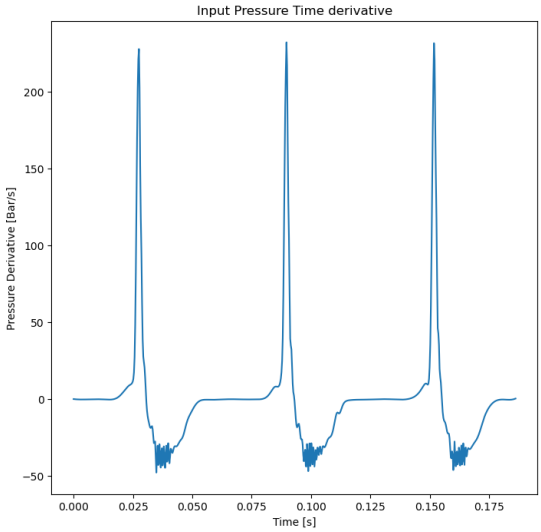




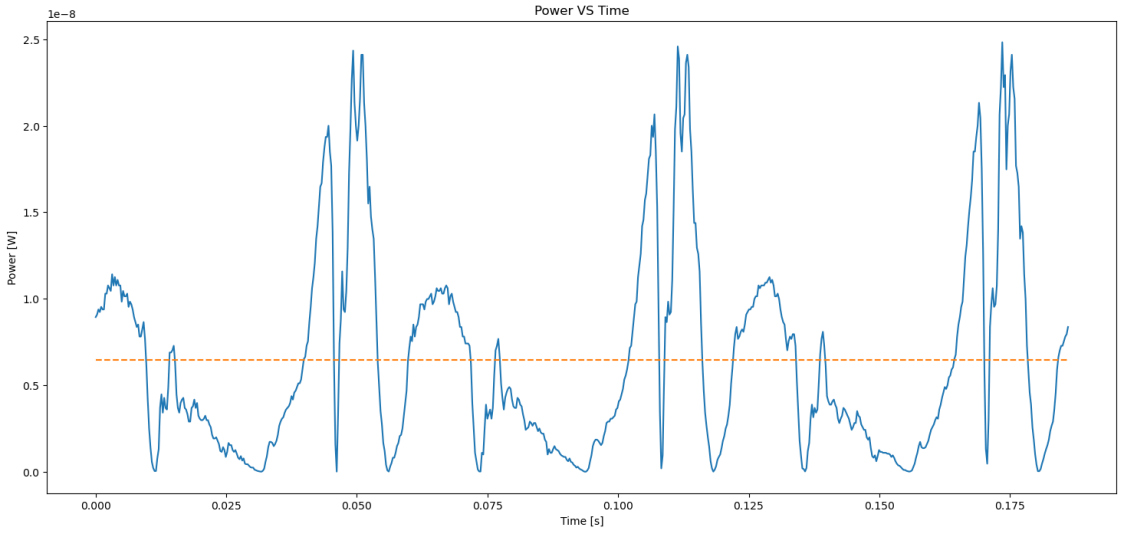

```
Max pressure: 0.53 [Bar]
Min pressure: -0.03 [Bar]
Peak to peak pressure: 0.56 [Bar]
Mean pressure: 0.08 [Bar]
Max voltage: 0.02 [V]
Min voltage: -0.04 [V]
Peak to peak voltage: 0.06 [V]
Mean voltage: -0.01 [V]
```

3 PRESSURE DERIVARTIVE





4 POWER

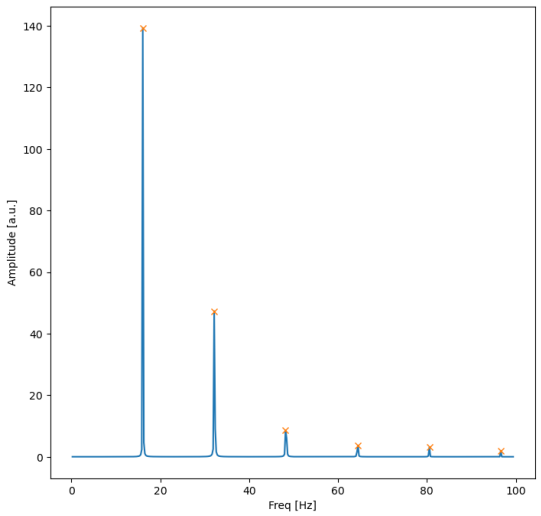


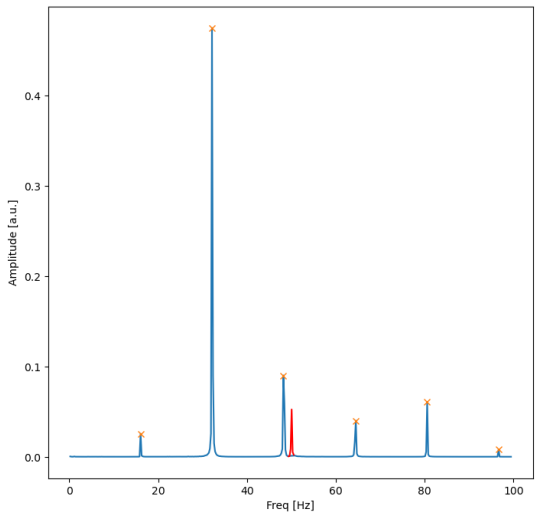

```
Mean power: 6.45e-09 [W]
```

5 FREQUENCY ANALYSIS

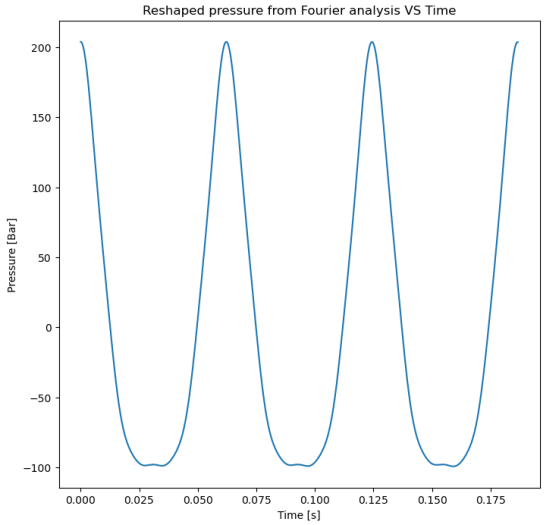
5.1 Perform Fourier transform

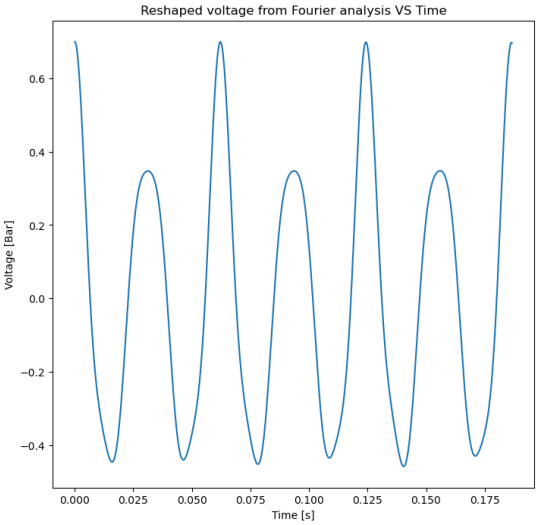
```
/Users/eliottsarrey/opt/anaconda3/lib/python3.8/site-
packages/numpy/core/_asarray.py:102: ComplexWarning: Casting complex values to
real discards the imaginary part
  return array(a, dtype, copy=False, order=order)
```





5.2 Recreate signals





6 MODEL CHECK UP