

## F0 IIR Simulations

### Context

Simulation made with VHD\_Lib design Validation\_IIR\_f0\_LFR r643.

To reproduce, run **generate.xsh** script with the number of iterations you want as parameter

```
./generate.xsh 10
```

Then to plot results open **plot\_results** notebook.

### Notebook

```
import numpy as np
import matplotlib.pyplot as plt
import glob
import pandas as pds

for folder in glob.glob("./2016*"):
    inputsig = pds.read_csv(folder+"/input.txt", sep=" ", header=None)
    inputsig.columns=[ "CH{}".format(i) for i in range(inputsig.shape[1])]
    outputsig = pds.read_csv(folder+"/output_fx.txt", sep=" ", header=None)
    outputsig.columns=["Tstamp"]+[ "CH{}".format(i) for i in range(outputsig.shape[1]-1)]
    f, axarr = plt.subplots(1,2,figsize=(14, 6))
    (outputsig.filter(regex="CH*")- inputsig*0.8912) [150:].plot(ax=axarr[0])
    axarr[0].legend(loc='upper right')
    (outputsig.filter(regex="CH*")[:100]/0.8912).plot(ax=axarr[1])
    axarr[1].legend(loc='upper right')
    plt.show()
```

output\_2\_0.png  
output\_2\_1.png  
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output\_2\_22.png  
output\_2\_23.png  
output\_2\_24.png

### Files

output_2_0.png	193 KB	05/11/2016	Alexis Jeandet
output_2_1.png	200 KB	05/11/2016	Alexis Jeandet
output_2_21.png	103 KB	05/11/2016	Alexis Jeandet

output_2_15.png	167 KB	05/11/2016	Alexis Jeandet
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output_2_4.png	171 KB	05/11/2016	Alexis Jeandet
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output_2_2.png	191 KB	05/11/2016	Alexis Jeandet