

easyplot

September 24, 2023

Simple notebook for plotting speaker data

```
[9]: import numpy as np
import pandas as pd
import plotly as plt
```

```
[10]: from spinorama.load_spl_hv_txt import parse_graph_spl_hv_txt
from spinorama.load import filter_graphs
```

```
[11]: # dir = 'where your files are'
# the parser expect to find the 72 files in this directory
# name of the file is *_H angle.txt for horizontal measurements with angle_
↳between -170 and 180 in 10 degrees increment
# name of the file is *_V angle.txt for vertical measurements with angle_
↳between -170 and 180 in 10 degrees increment
speaker = "Ascend Acoustics Sierra-2EX V2"
dir = f"../datas/measurements/{speaker}/vendor"

# read horizontal and vertical data
# spl_H and spl_V are dataframe
_, spl_H = parse_graph_spl_hv_txt(dir, "H")
_, spl_V = parse_graph_spl_hv_txt(dir, "V")

# put them in a convenient dictionary of dataframe
df = filter_graphs(speaker, spl_H, spl_V)
```

```
[12]: from spinorama.compute_cea2034 import compute_cea2034
```

```
[13]: # compute the spin
spin = compute_cea2034(df["SPL Horizontal_unmelted"], df["SPL_
↳Vertical_unmelted"])
```

```
[14]: import spinorama.plot as plot

# example of the parameters you can change for the layout
# see plotly documentation for all the options
my_layout = dict(
    width=1000,
```

```

height=600,
title=dict(
    x=0.5,
    y=1.0,
    xanchor="center",
    yanchor="top",
    text=speaker,
    font=dict(
        size=20,
    ),
),
legend=dict(
    x=1.2,
    y=1,
    xanchor="center",
    orientation="v",
    font=dict(
        size=12,
    ),
),
font=dict(size=14),
)

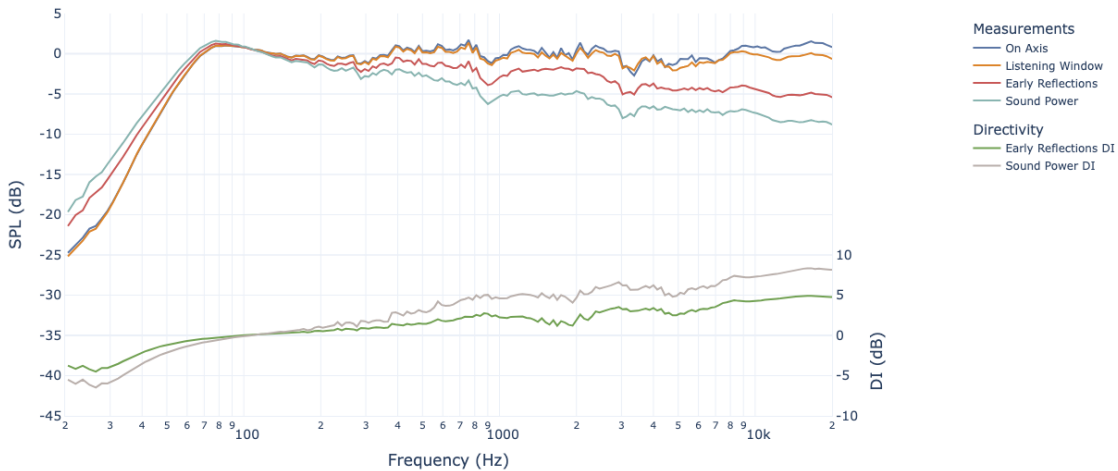
```

```

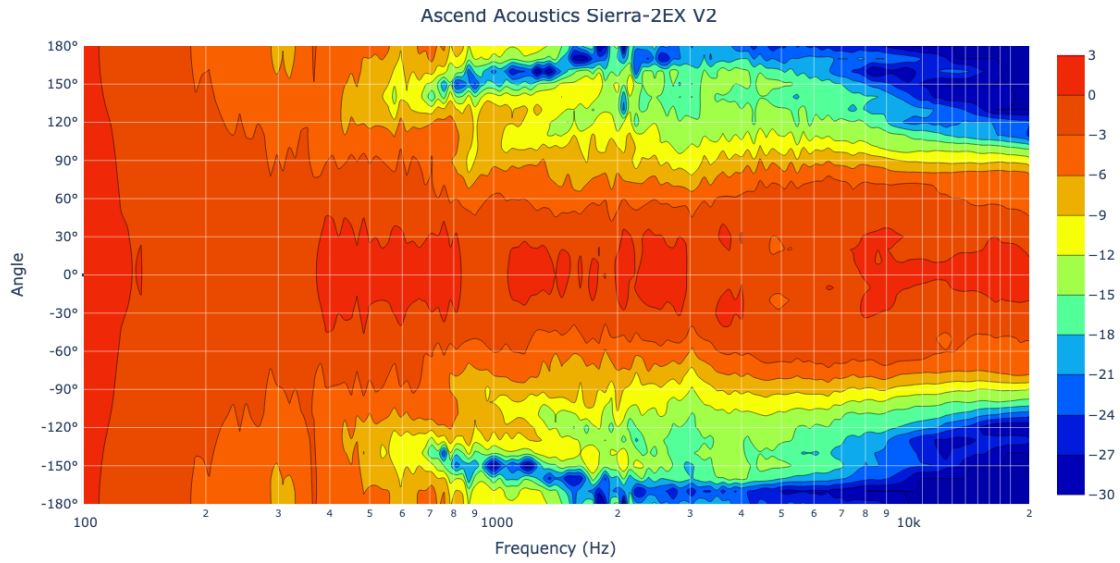
[15]: plot_spin = plot.plot_spinorama(spin, plot.plot_params_default)
plot_spin.update_layout(my_layout)
plot_spin

```

Ascend Acoustics Sierra-2EX V2



```
[16]: plot_contour_h = plot.plot_contour(df["SPL Horizontal_unmelted"], plot.  
      ↪ contour_params_default)  
      plot_contour_h.update_layout(my_layout)  
      plot_contour_h
```



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