
EXAMPLE ARXIV NOTEBOOK

JUPYTER NOTEBOOK REPORT

author 1
organization 1
organization 2
email1@gmail.com

author 2
organization 2
organization 3
email2@gmail.com

May 21, 2023

ABSTRACT

In this paper, we demonstrate using the `arxiv_notebook` package to convert a Jupyter notebook into a PDF using an arxiv LaTeX style.

```
[1]: # !pip install pandas numpy matplotlib
```

```
[2]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from arxiv_notebook import notebook_to_arxiv
```

1 Generate example data

In this section, we generate a DataFrame of two sine waves using `pandas` and `matplotlib`.

```
[3]: # Generate two sine waves.
x = np.linspace(0, 4 * np.pi, 100)

# Create a DataFrame
df = pd.DataFrame({'x': x, 'y1': np.sin(x), 'y2': np.sin(2 * x)}).set_index(x)
df
```

```
[3]:
```

	x	y1	y2
0.000000	0.000000	0.000000e+00	0.000000e+00
0.126933	0.126933	1.265925e-01	2.511480e-01
0.253866	0.253866	2.511480e-01	4.861967e-01
0.380799	0.380799	3.716625e-01	6.900790e-01
0.507732	0.507732	4.861967e-01	8.497254e-01
...
12.058638	12.058638	-4.861967e-01	-8.497254e-01
12.185572	12.185572	-3.716625e-01	-6.900790e-01
12.312505	12.312505	-2.511480e-01	-4.861967e-01
12.439438	12.439438	-1.265925e-01	-2.511480e-01
12.566371	12.566371	-4.898587e-16	-9.797174e-16

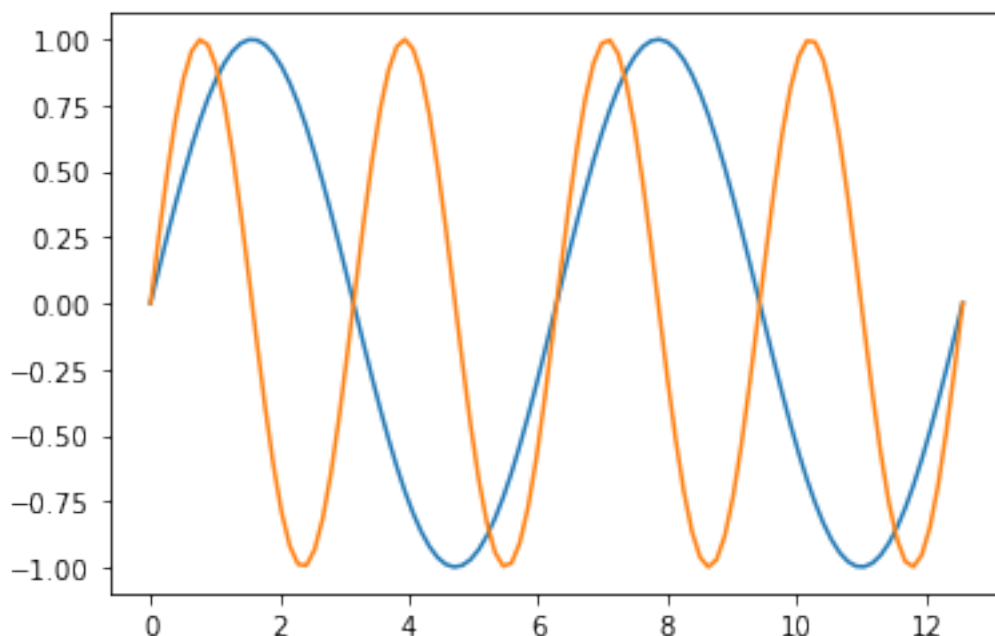
[100 rows x 3 columns]

2 Plot data

In this section we plot the sine waves.

```
[4]: fig, ax = plt.subplots(1, 1)
      df['y1'].plot(ax=ax)
      df['y2'].plot(ax=ax)
```

[4]: <AxesSubplot:>



```
[ ]: notebook_to_arxiv(
      notebook_path='example.ipynb',
      name='output',
      title='Example arXiv Notebook',
      authors=[
          {
              'name': 'author 1',
              'first_line': 'organization 1',
              'second_line': 'organization 2',
              'email': 'email1@gmail.com'
          },
          {
              'name': 'author 2',
              'first_line': 'organization 2',
              'second_line': 'organization 3',
              'email': 'email2@gmail.com'
          }
      ],
      under_title='Jupyter Notebook Report',
      header_right='Example Report',
      header_center=r'Example for \texttt{arxiv\_notebook} package',
      abstract=r'In this paper, we demonstrate using the \texttt{arxiv\_notebook}
      ↪package to convert a Jupyter notebook into a PDF using an arxiv LaTeX style.',
      save_notebook=True
  )
```