test_jupyter

July 12, 2022

1 Test Jupyter

1.1 test shell interactive

[ ]:
```
!ls
!pwd
```

```
Loan_2021.nb        Salary_2021Jan.nb  test_jupyter.ipynb
loan.nb             Salary_2021.nb     test_jupyter.py
Salary_2021Feb.nb   tax.nb             test_Octave.m
/home/bosonicli/Documents/MehrWert/currency
```

1.2 test init

[ ]:
```
os.getcwd()
%matplotlib widget
```

1.3 test import

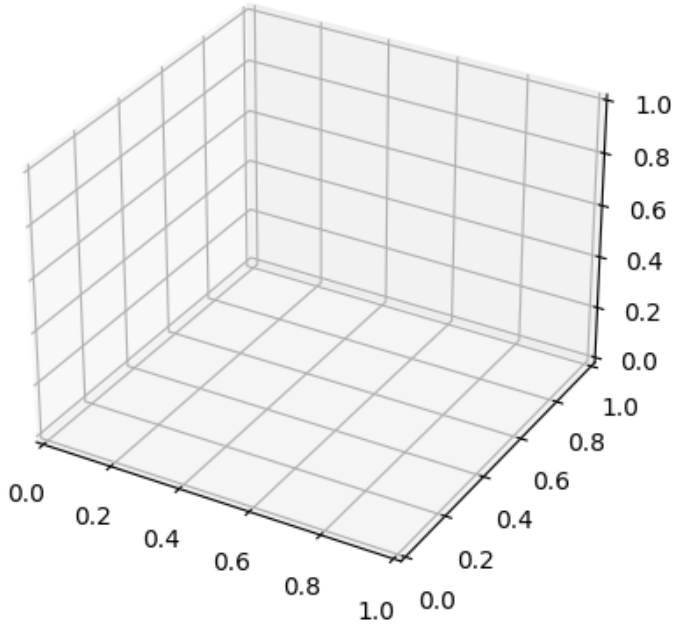
[ ]:
```
import numpy as np
import pandas as pd
from matplotlib import pyplot as plt
from mpl_toolkits.mplot3d import Axes3D

from __future__ import print_function
from ipywidgets import interact, interactive, fixed, interact_manual
import ipywidgets as widgets

from IPython.display import display
```

1.4 test canvas setting

[ ]:
```
fig1 = plt.figure()
ax1 = plt.axes(projection = '3d')
```



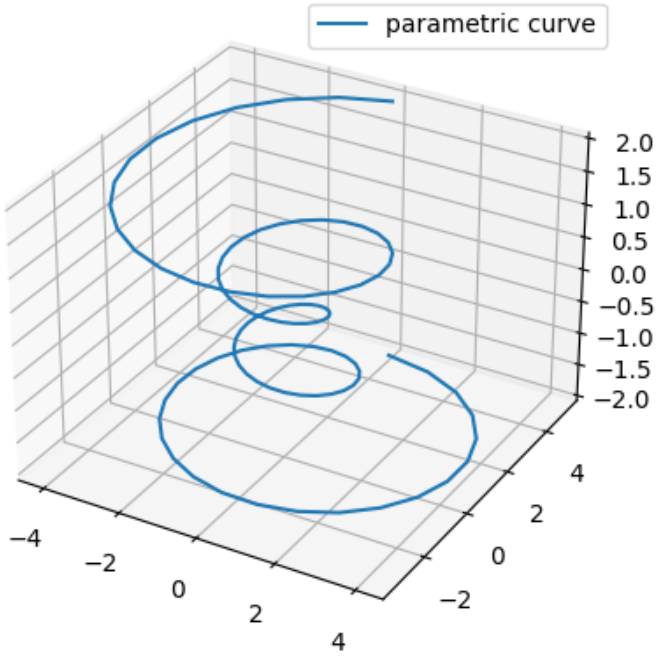
1.5 test curve setting

[ ]:
```
theta1 = np.linspace(-4 * np.pi, 4 * np.pi, 100)
z1 = np.linspace(-2, 2, 100)
r1 = z1**2 +1
x1 = r1 * np.sin(theta1)
y1 = r1 * np.cos(theta1)
```

1.6 test curve show

[ ]:
```
ax1.plot(x1, y1, z1, label='parametric curve')
ax1.legend()

plt.show()
```



1.7 test Jupyter interactive

[ ]:
```
def testSlider(x):
    return x
# generate a slider
interact(testSlider, x=widgets.IntSlider(min=0, max=20, step=1, value=10));
interact(testSlider, x=widgets.Combobox(options=["Chicago", "New York",␣
 ↪"Washington"], value="Chicago"));

def sumInteractive(a, b):
    display(a + b)
    return a+b
w = interactive(sumInteractive, a=10, b=20)
display(w)
```

```
interactive(children=(IntSlider(value=10, description='x', max=20), Output()),␣
 ↪_dom_classes=('widget-interact'…
```

```
interactive(children=(Combobox(value='Chicago', description='x',␣
 ↪options=('Chicago', 'New York', 'Washington')…
```

```
interactive(children=(IntSlider(value=10, description='a', max=30, min=-10),␣
↪IntSlider(value=20, description='…
```