Sprawozdanie Numer 2

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Temat : Próbkowanie i kwantyzacja

Kod Programu :

```
import math

import numpy as np

import matplotlib.pyplot as plt

import array


a=4;b=5;c=4;

xcords = [] ; ycords = [] ; bob = [] ; aoa = []

xcords1 = []

x=0

while x <= a:

    xcords.append(x)

    funkcja = 1 * math.sin(2 * math.pi * b * x + c*math.pi)

    aa=math.floor((funkcja*(math.pow(2,15)-1)+math.pow(2,15)-1))


    ycords.append(funkcja)

    aoa.append(aa)


    x=x+0.006

    x=round(x,4)
```

```
x=0
while x <= a:
    xcords1.append(x)
    funkcja = 1 * math.sin(2 * math.pi * b * x + c*math.pi)
    bb=math.floor((funkcja*(math.pow(2,7)-1)+math.pow(2,7)-1))
    bob.append(bb)

    x=x+0.012
    x=round(x,4)

fig, axs=plt.subplots(3)
fig.suptitle('Vertically stacked subplots')

axs[0].plot(xcords,ycords,'bo')
axs[1].plot(xcords,aoa,'bo')
axs[2].plot(xcords1,bob,'bo')
plt.show()
```

Zdjecia Wyników :

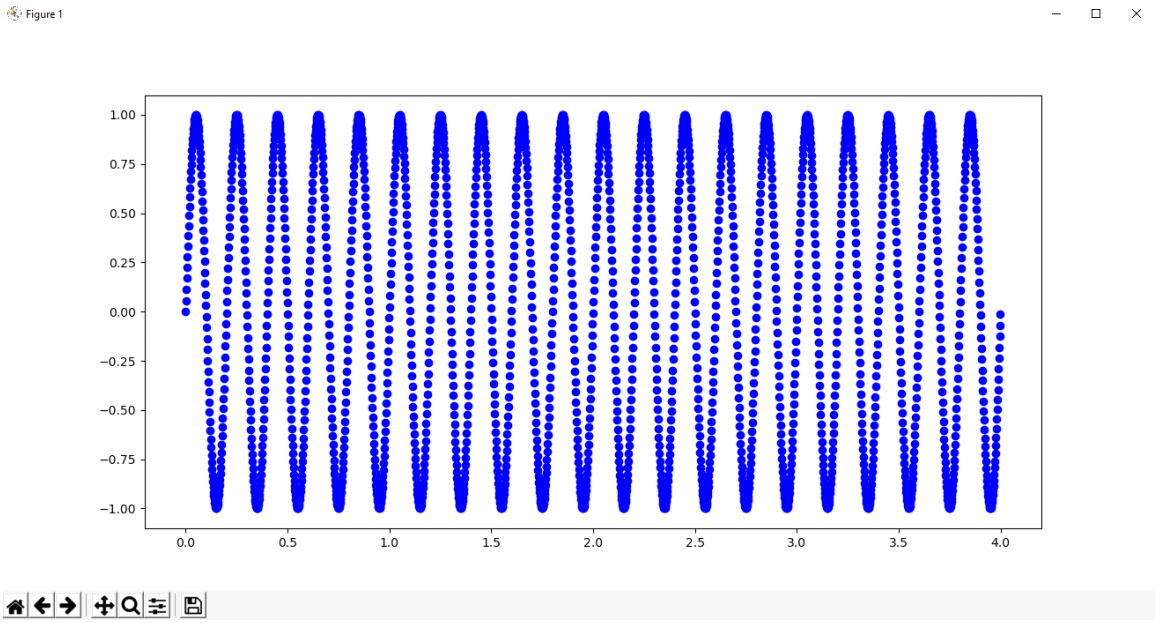
Figure 1
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

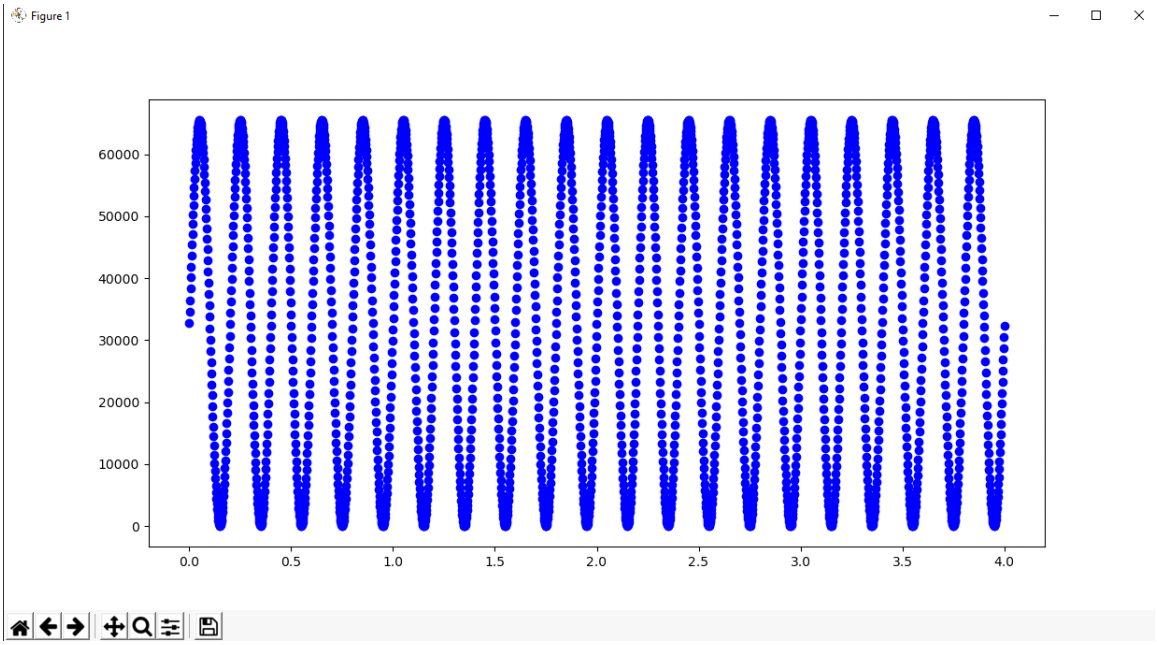
Figure 1
60000
50000
40000
30000
20000
10000
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

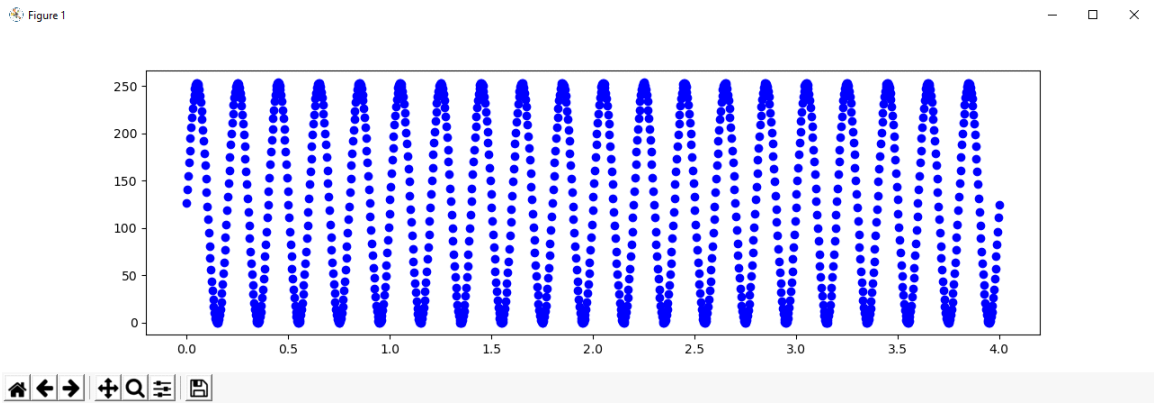
Figure 1
250
200
150
100
50
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0