problema2

May 27, 2020

[1]:
```
from math import pi,sqrt,pow
from pylab import plot, show
print('...')
```

```
...
```

[2]:
```
def f(x,y):
  r=y*((y**2+x**2)**(-1.5))
  return (r)
print('...')
```

```
...
```

[3]:
```
def f2(x,y):
  r=x*((y**2+x**2)**(-1.5))

  return (0)
print('...')
```

```
...
```

[4]:
```
from numpy import zeros, array
from math import sqrt
from pylab import imshow
from numpy import linspace
import numpy as np
import matplotlib.colors
from pylab import plt
print('...')
```

```
...
```

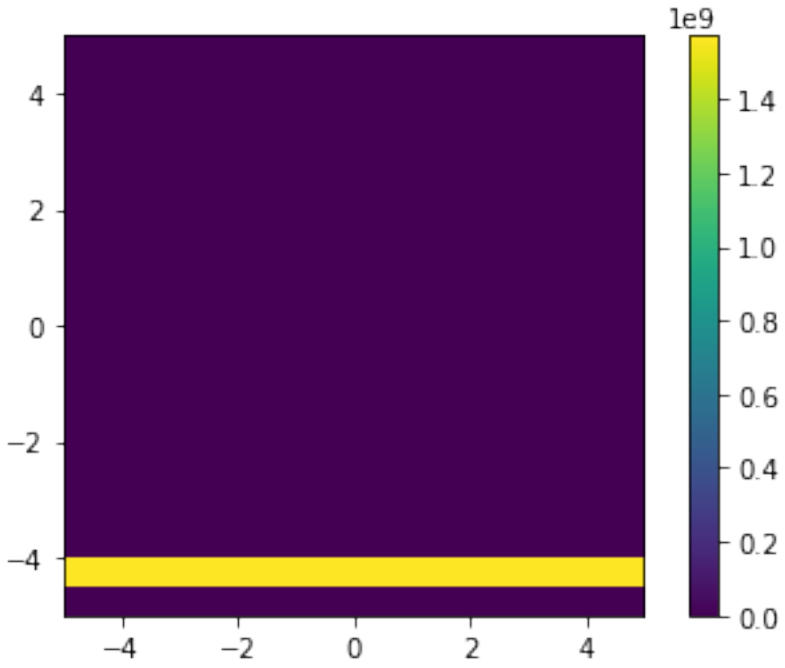
[5]:
```
N=20
a=-2
b=-2
```

```
h=(a+b)/N

fp=zeros([N,N],float)
xlim=linspace(-5,5,N)
xlim=linspace(-7,7,N)

for i in range (-N,N,1):
  x=xlim[i]
  for k in range (-N,N,1):
    y=xlim[k]
    R=0
    for j in range (1,N,2):
      R=4*f((a+j*h),y)

    for j in range (2,N,2):
      R=2*f((a+j*h),y)
    R=f(a,y)+f(b,y)+(1/3)*h*R
    E=8.99e9*5*sqrt(R**2)
    fp[j,i]=E
print('...')
```

...

[6]:
```
n=imshow(fp,extent =[-5, 5, -5, 5])
plt.colorbar(n)
```

[6]: <matplotlib.colorbar.Colorbar at 0x7ff9a7a677f0>



[0]: