import matplotlib

matplotlib.use('Agg')

import matplotlib.pyplot as plt

import numpy as np

#import matplotlib.colors

import matplotlib.colors as colors

from matplotlib import cm

import pandas as pd

NPT=1024

x\_min = 0

y\_min = 0

x\_max = 1024.0

y\_max = 1024.0

d0=0.5

dx1 =(x\_max-x\_min)/NPT

#color\_map=cm.coolwarm

plot\_title\_font = 25

data1 = pd.read\_csv(r'run1\_wat\_le10\_karma\_valid\_n1024\_phi60.dat', header=None)

z1=data1

x1\_edge = np.linspace(x\_min,x\_max,NPT)

y1\_edge = np.linspace(y\_min,y\_max,NPT)

X1,Y1=np.meshgrid(x1\_edge/d0,y1\_edge/d0)

Z1=np.reshape(z1, (NPT, NPT),order='C')

levels = 1024

limit = 2048

fig = plt.figure(figsize=(10.5,7))

plt.rcParams['font.family'] = 'sans-serif'

plt.rcParams.update({'font.size': 18})

ax = plt.subplot(1,1,1)

ax.contour(X1,Y1,Z1,levels=[0.0],colors='k',alpha=0.5,linestyles='solid',linewidths=2)

plt.subplots\_adjust(left=0.11, bottom=0.11, right=0.72, top=0.96, wspace=0.05, hspace=0.01)

plt.savefig('binary\_den.pdf', format='pdf')

plt.show()