import matplotlib.pyplot as pyplot

import numpy

from matplotlib import rc

rc("font",family="serif")

%matplotlib inline

# define values

Lambda = 0.01

Mu = 0.19

# plot phase diagram

u = numpy.linspace(0,0.1,100)
f = []

i = 0

while i < len(u):

 f.append(Lambda\*(1-u[i])-Mu\*u[i])

 i += 1

pyplot.plot(u,f, color = "blue")
pyplot.axhline(y=0, color = "grey")
pyplot.grid()

pyplot.title("Phasendiagramm")
pyplot.xlabel("u")
pyplot.ylabel("du/dt")

pyplot.show()