

```
import numpy
import random
import math
from matplotlib.pyplot import *
import isingchampvrai2

N = 30

c=numpy.zeros((N,N),dtype=numpy.uint8)
for k in range(0,N):
    for i in range(0,N):
        c[k,i]=random.randint(0,1)
ising = isingchampvrai2.Ising2D(N,c)
ising.temperature(2.3,-1)
(m,M,dM,d)=ising.boucle(1000)
T1=np.linspace(0,1000,1000)
plot(T1,m,'b')
```