052-test-octahedra-shifts

March 23, 2017

In [1]:
```
from ScatterSim.NanoObjects import RandomizedNanoObject, PolydisperseNanoObject, SphereN
from ScatterSim.CompositeNanoObjects import OctahedronCylindersNanoObject
import numpy as np
import matplotlib.pyplot as plt

%matplotlib inline
```

In [2]:
```
radius = 3
height = 28.6
sigma_radius = .04
sigma_height = 10.
edgelength = 40.2
pargs_octa = {
    'radius' : radius,
    'height' : height,
    'edgelength' : edgelength,
    'CYZ1' : 10,
    'CXZ1': 0,
    'CYZ2' : 0,
    'CXZ2' : -5,
    'CXY1' : 0,
    'CXY4' : 0,
    'CXY3' : 0,
    'CXY2' : 0,
    'CYZ3' : 0,
    'CXZ3' : 0,
    'CYZ4' : 0,
    'CXZ4' : 0,
}
```

In [3]:
```
octa = OctahedronCylindersNanoObject(pargs=pargs_octa)
```

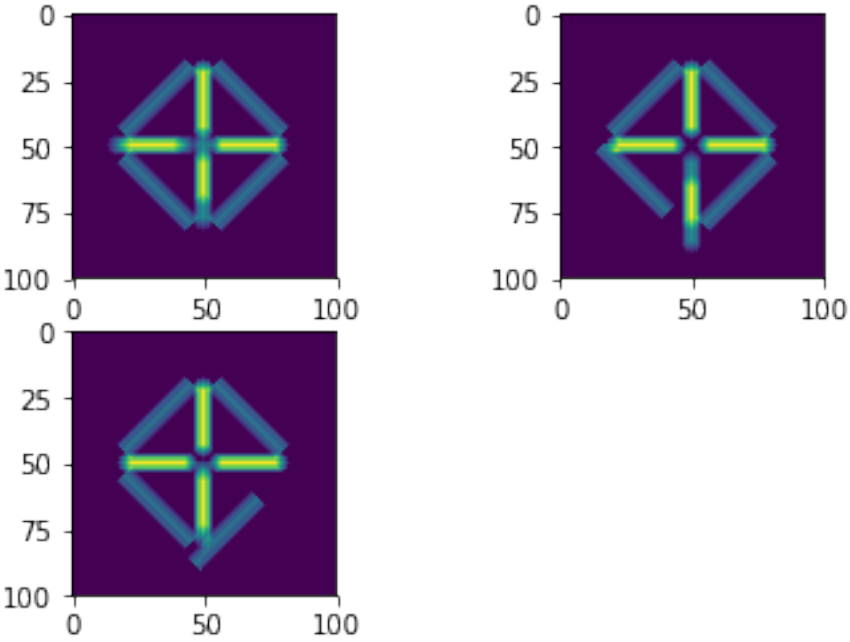
In [4]:
```
q = np.linspace(.1, 10, 1000)

#sqocta = octa.form_factor_squared_isotropic(q)
#sqpolyocta = polyocta.form_factor_squared_isotropic(q)
```

In [5]:
```
#plt.figure(0);plt.clf();
#plg.loglog(q, sqocta)
#plt.loglog(q,sqpolyocta)
```

In [6]:
```
V1, V2, V3 = octa.projections(40)
```

In [7]:
```
plt.figure(0);plt.clf()
plt.subplot(2,2,1)
plt.imshow(V1)
plt.subplot(2,2,2)
plt.imshow(V2)
plt.subplot(2,2,3)
plt.imshow(V3)
```

Out[7]: <matplotlib.image.AxesImage at 0x7fb12240f240>



In [ ]: