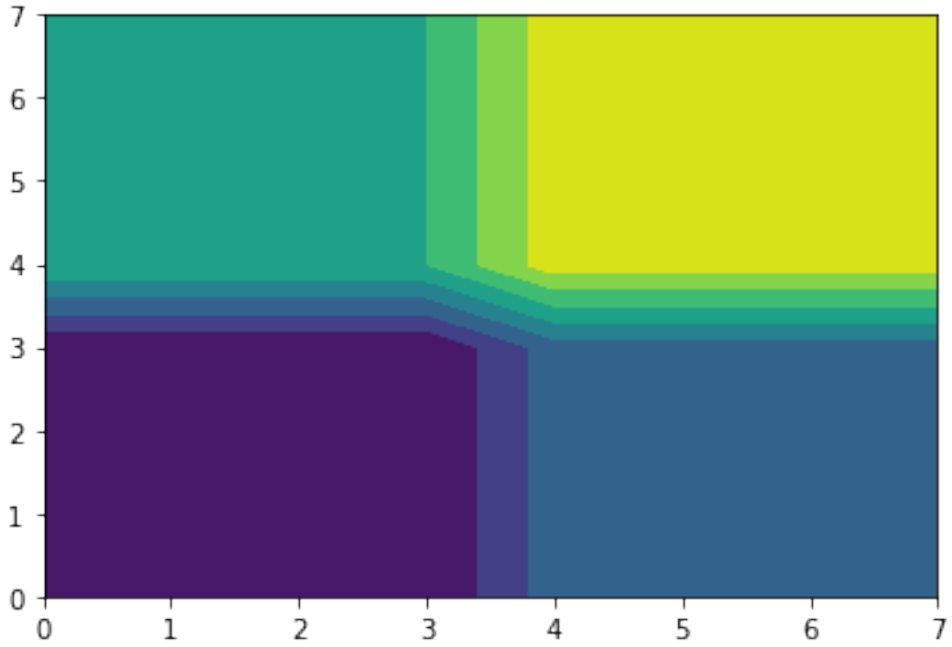
example

October 7, 2019

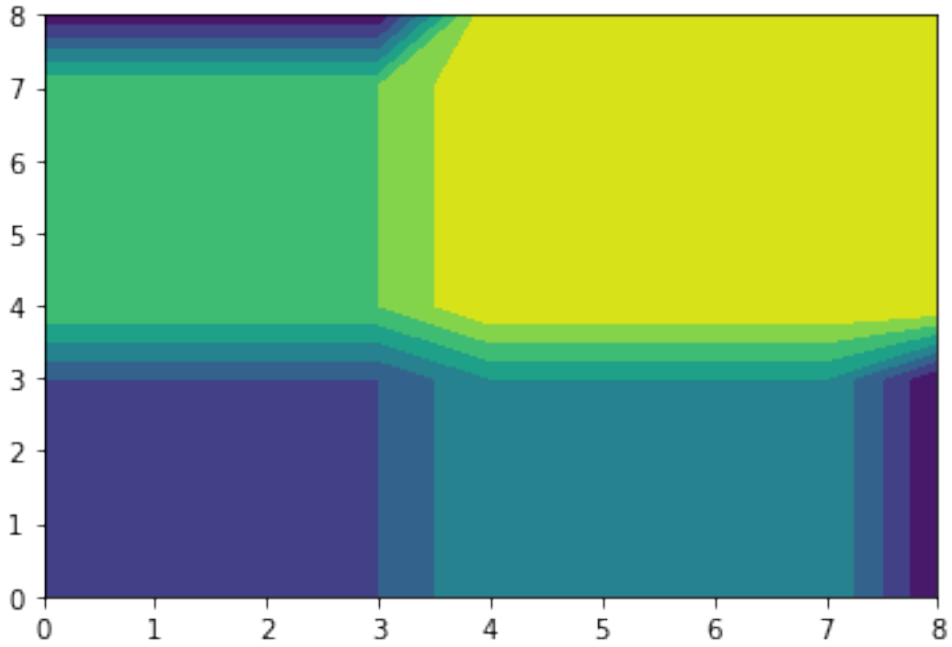
```
In [20]: import numpy as np
         import matplotlib.pyplot as plt
         import h5py

In [21]: f = h5py.File('test.h5')

In [22]: # list keys in the h5 file
         f.keys()

Out[22]: <KeysViewHDF5 ['U', 'V']>

In [23]: # list keys in the h5 file at the second level
         print(f['U'].keys())
         print(f['V'].keys())

<KeysViewHDF5 ['t1']>
<KeysViewHDF5 ['t2']>


In [24]: # there is no third level, so data['U']['t1'] corresponds with the data
         data = np.array(f['U']['t1'])
         print(np.shape(data))
         print(data)

(8, 8)
[[0. 0. 0. 0. 1. 1. 1. 1.]
 [0. 0. 0. 0. 1. 1. 1. 1.]
 [0. 0. 0. 0. 1. 1. 1. 1.]
 [0. 0. 0. 0. 1. 1. 1. 1.]
 [2. 2. 2. 2. 3. 3. 3. 3.]
 [2. 2. 2. 2. 3. 3. 3. 3.]
 [2. 2. 2. 2. 3. 3. 3. 3.]
 [2. 2. 2. 2. 3. 3. 3. 3.]]


In [25]: plt.contourf(data)
         plt.show()
```



In [26]:
```
data2 = np.array(f['V']['t2'])
print(np.shape(data2))
print(data2)
```

```
(9, 9)
[[1. 1. 1. 1. 2. 2. 2. 2. 0.]
 [1. 1. 1. 1. 2. 2. 2. 2. 0.]
 [1. 1. 1. 1. 2. 2. 2. 2. 0.]
 [1. 1. 1. 1. 2. 2. 2. 2. 0.]
 [3. 3. 3. 3. 4. 4. 4. 4. 4.]
 [3. 3. 3. 3. 4. 4. 4. 4. 4.]
 [3. 3. 3. 3. 4. 4. 4. 4. 4.]
 [3. 3. 3. 3. 4. 4. 4. 4. 4.]
 [0. 0. 0. 0. 4. 4. 4. 4. 4.]]
```

In [27]:
```
plt.contourf(data2)
plt.show()
```



In [ ]:

In [ ]: