```
1  ssh://root@103.254.67.181:10006/usr/bin/
   python -u /home/sunfengzhen/pycharm/
   h5rw_heatmap/hot_map.py
2  ###################read and write h5
   #######################
3  reading  BJ13_M32x32_T30_InOut.h5
4  fr.keys() =  [u'data', u'date']
5  /usr/local/lib/python2.7/dist-packages/
   h5py/_hl/dataset.py:313:
   H5pyDeprecationWarning: dataset.value
   has been deprecated. Use dataset[()]
   instead.
6    "Use dataset[()] instead.",
   H5pyDeprecationWarning)
7  data.shape =  (4888, 2, 32, 32)
8  data.dtype =  float64
9  save  small.h5
10 ###################read small h5
   #######################
11 reading  small.h5
12 fr.keys() =  [u'small_data']
13 data.shape =  (48, 32, 32)
14 data.dtype =  float64
15 max data =  965.0
```

```
16  min data =   0.0
17  ################plt and save h5
    ######################
18  data[00,:,:].shape is  (32, 32)
19  data[00,:,:].dtype is  float64
20  data[00,:,:] =
21   [[0.          0.02072539 0.04248705 ...
    0.00725389 0.00103627 0.04145078]
22   [0.          0.01139896 0.00829016 ... 0
    .02279793 0.00725389 0.09948187]
23   [0.          0.00932642 0.00518135 ... 0
    .01450777 0.20518135 0.12124352]
24   ...
25   [0.00103627 0.00310881 0.00414508 ... 0
    .00829016 0.00621762 0.00310881]
26   [0.         0.         0.         ... 0
    .00932642 0.         0.00725389]
27   [0.00103627 0.         0.         ... 0
    .01761658 0.02072539 0.00725389]]
28  data[01,:,:].shape is  (32, 32)
29  data[01,:,:].dtype is  float64
30  data[01,:,:] =
31   [[0.          0.01243523 0.01968912 ...
    0.00207254 0.00310881 0.04145078]
```

```
32   [0.          0.00725389 0.01036269 ...  0
     .01761658 0.00621762 0.08704663]
33   [0.          0.00621762 0.00310881 ...  0
     .02072539 0.20518135 0.15336788]
34   ...
35   [0.          0.00103627 0.00518135 ...  0
     .00829016 0.00725389 0.00103627]
36   [0.          0.00103627 0.00310881 ...  0
     .00829016 0.          0.00414508]
37   [0.          0.00207254 0.00207254 ...  0
     .01865285 0.01450777 0.00518135]]
38 data[02,:,:].shape is  (32, 32)
39 data[02,:,:].dtype is  float64
40 data[02,:,:] =
41   [[0.          0.00518135 0.01554404 ...
     0.00103627 0.00207254 0.03419689]
42   [0.          0.00518135 0.00414508 ...  0
     .01036269 0.00725389 0.0746114 ]
43   [0.          0.00207254 0.00621762 ...  0
     .00518135 0.16165803 0.08911917]
44   ...
45   [0.00207254 0.00207254 0.00310881 ...  0
     .00518135 0.00414508 0.00103627]
46   [0.00103627 0.00103627 0.00103627 ...  0
```

```
46 .00725389 0.00103627 0.            ]
47  [0.          0.00103627 0.          ... 0
.00621762 0.00414508 0.00207254]]
48 data[03,:,:].shape is  (32, 32)
49 data[03,:,:].dtype is  float64
50 data[03,:,:] =
51  [[0.          0.00414508 0.00932642 ...
0.00103627 0.00103627 0.01658031]
52  [0.          0.00518135 0.00310881 ... 0
.00829016 0.00414508 0.03937824]
53  [0.          0.00518135 0.00207254 ... 0
.00829016 0.08601036 0.06217617]
54  ...
55  [0.          0.00103627 0.00207254 ... 0
.          0.          0.00103627]
56  [0.          0.00103627 0.          ... 0
.00310881 0.          0.00103627]
57  [0.          0.00103627 0.00103627 ... 0
.00621762 0.00310881 0.00207254]]
58 data[04,:,:].shape is  (32, 32)
59 data[04,:,:].dtype is  float64
60 data[04,:,:] =
61  [[0.          0.00414508 0.00414508 ...
0.00207254 0.          0.01554404]
```

```
62   [0.         0.00207254 0.00518135 ... 0
.01139896 0.         0.03523316]
63   [0.         0.00103627 0.00207254 ... 0
.01036269 0.06943005 0.0507772 ]
64   ...
65   [0.00310881 0.00310881 0.00207254 ... 0
.00414508 0.00103627 0.         ]
66   [0.         0.         0.         ... 0
.00518135 0.         0.00207254]
67   [0.         0.         0.         ... 0
.00518135 0.00414508 0.00207254]]
68  data[05,:,:].shape is  (32, 32)
69  data[05,:,:].dtype is  float64
70  data[05,:,:] =
71   [[0.         0.00103627 0.00414508 ...
0.00207254 0.00103627 0.00932642]
72   [0.         0.00207254 0.00518135 ... 0
.00725389 0.00310881 0.0238342 ]
73   [0.         0.00103627 0.00207254 ... 0
.00829016 0.05595855 0.0373057 ]
74   ...
75   [0.         0.         0.         ... 0
.00207254 0.00207254 0.00103627]
76   [0.         0.         0.         ... 0
```

```
76  .00207254 0.            0.00103627]
77   [0.          0.            0.00103627 ... 0
    .00414508 0.00103627 0.00207254]]
78  data[06,:,:].shape is  (32, 32)
79  data[06,:,:].dtype is  float64
80  data[06,:,:] =
81   [[0.          0.00207254 0.00518135 ...
    0.00207254 0.            0.00621762]
82   [0.          0.00207254 0.00310881 ... 0
    .00414508 0.00103627 0.02487047]
83   [0.          0.00103627 0.00207254 ... 0
    .00621762 0.0642487   0.04870466]
84   ...
85   [0.          0.            0.            ... 0
    .00103627 0.00103627 0.          ]
86   [0.          0.            0.            ... 0
    .00103627 0.          0.00103627]
87   [0.          0.            0.            ... 0
    .00103627 0.00518135 0.00103627]]
88  data[07,:,:].shape is  (32, 32)
89  data[07,:,:].dtype is  float64
90  data[07,:,:] =
91   [[0.          0.00207254 0.00414508 ...
    0.00207254 0.            0.00725389]
```

```
92   [0.           0.00103627 0.              ...
0.00725389 0.00310881 0.02072539]
93   [0.           0.           0.00103627 ...
0.00518135 0.05803109 0.03937824]
94   ...
95   [0.           0.           0.              ...
0.00310881 0.00207254 0.00103627]
96   [0.           0.           0.              ...
0.00310881 0.           0.00103627]
97   [0.           0.           0.              ...
0.00414508 0.00310881 0.00207254]]
98 data[08,:,:].shape is  (32, 32)
99 data[08,:,:].dtype is  float64
100 data[08,:,:] =
101  [[0.           0.00207254 0.00932642
 ... 0.           0.           0.01243523]
102  [0.           0.           0.              ...
0.00725389 0.00103627 0.01658031]
103  [0.           0.           0.00103627 ...
0.00518135 0.06010363 0.03937824]
104  ...
105  [0.           0.           0.              ...
0.           0.           0.           ]
106  [0.           0.           0.              ...
```

```
106  0.00310881 0.             0.00103627]
107   [0.            0.            0.            ...
     0.00518135 0.00621762 0.00103627]]
108  data[09,:,:].shape is  (32, 32)
109  data[09,:,:].dtype is  float64
110  data[09,:,:] =
111   [[0.            0.00103627 0.00310881
     ...  0.00207254 0.00103627 0.00932642]
112   [0.            0.00207254 0.00103627 ...
     0.01450777 0.00103627 0.03419689]
113   [0.            0.00414508 0.             ...
     0.01243523 0.10051813 0.07564767]
114   ...
115   [0.            0.00207254 0.00310881 ...
     0.00103627 0.             0.             ]
116   [0.            0.            0.             ...
     0.00414508 0.             0.00103627]
117   [0.            0.            0.             ...
     0.00621762 0.00518135 0.00103627]]
118  data[10,:,:].shape is  (32, 32)
119  data[10,:,:].dtype is  float64
120  data[10,:,:] =
121   [[0.            0.00518135 0.0134715
     ...  0.00207254 0.00103627 0.0134715  ]
```

```
122  [0.          0.00621762 0.00414508 ...
0.00932642 0.00621762 0.08186528]
123  [0.          0.          0.00310881 ...
0.0134715  0.19585492 0.15440415]
124  ...
125  [0.          0.          0.00103627 ...
0.          0.          0.          ]
126  [0.          0.          0.          ...
0.00414508 0.          0.00103627]
127  [0.          0.          0.          ...
0.00310881 0.00310881 0.          ]]
128  data[11,:,:].shape is  (32, 32)
129  data[11,:,:].dtype is  float64
130  data[11,:,:] =
131  [[0.          0.          0.01243523
... 0.          0.00414508 0.01761658]
132  [0.          0.00103627 0.00725389 ...
0.01761658 0.00829016 0.11295337]
133  [0.          0.          0.00518135 ...
0.02797927 0.28393782 0.24145078]
134  ...
135  [0.00207254 0.00207254 0.00103627 ...
0.00621762 0.00414508 0.          ]
136  [0.          0.          0.          ...
```

```
136  0.00621762 0.          0.00621762]]
137   [0.          0.          0.          ...
     0.00725389 0.00621762 0.00103627]]
138  data[12,:,:].shape is  (32, 32)
139  data[12,:,:].dtype is  float64
140  data[12,:,:] =
141   [[0.          0.00414508 0.01450777
     ...  0.00518135 0.00310881 0.0373057 ]
142   [0.          0.00414508 0.00932642 ...
     0.0238342  0.00829016 0.1626943 ]
143   [0.          0.00414508 0.00829016 ...
     0.0134715  0.3626943  0.29637306]
144   ...
145   [0.00207254 0.00207254 0.00621762 ...
     0.00207254 0.00414508 0.00103627]
146   [0.          0.00103627 0.00207254 ...
     0.00725389 0.          0.00932642]
147   [0.          0.          0.          ...
     0.00725389 0.00621762 0.00103627]]
148  data[13,:,:].shape is  (32, 32)
149  data[13,:,:].dtype is  float64
150  data[13,:,:] =
151   [[0.00103627 0.0134715   0.02176166
     ...  0.00103627 0.01139896 0.04455959]
```

```
152  [0.          0.02590674 0.02072539 ...
0.04870466 0.02590674 0.19585492]
153  [0.          0.01761658 0.02487047 ...
0.01968912 0.42901554 0.3492228 ]
154  ...
155  [0.00103627 0.00103627 0.00103627 ...
0.00310881 0.00414508 0.00103627]
156  [0.          0.          0.          ...
0.00518135 0.          0.00725389]
157  [0.          0.          0.00103627 ...
0.00725389 0.00829016 0.00207254]]
158 data[14,:,:].shape is  (32, 32)
159 data[14,:,:].dtype is  float64
160 data[14,:,:] =
161  [[0.          0.01554404 0.01968912
... 0.00310881 0.00621762 0.04870466]
162  [0.00207254 0.02797927 0.02176166 ...
0.07253886 0.0373057  0.18134715]
163  [0.          0.0134715  0.0238342  ...
0.02694301 0.46010363 0.3357513 ]
164  ...
165  [0.          0.          0.00103627 ...
0.00621762 0.00207254 0.00207254]
166  [0.          0.00103627 0.00103627 ...
```

```
166  0.00310881 0.00103627 0.01243523]
167   [0.          0.          0.00103627 ...
     0.01761658 0.02279793 0.00829016]]
168  data[15,:,:].shape is  (32, 32)
169  data[15,:,:].dtype is  float64
170  data[15,:,:] =
171   [[0.00103627 0.01761658 0.03212435
     ...  0.01139896 0.01658031 0.03626943]
172   [0.          0.03523316 0.0373057   ...
     0.06735751 0.03212435 0.19792746]
173   [0.          0.01761658 0.0373057   ...
     0.01761658 0.36373057 0.35129534]
174   ...
175   [0.00310881 0.00932642 0.01554404 ...
     0.00207254 0.00103627 0.          ]
176   [0.          0.00518135 0.00414508 ...
     0.01243523 0.          0.01139896]
177   [0.00103627 0.00103627 0.00207254 ...
     0.03005181 0.03834197 0.02176166]]
178  data[16,:,:].shape is  (32, 32)
179  data[16,:,:].dtype is  float64
180  data[16,:,:] =
181   [[0.          0.01865285 0.04145078
     ...  0.00414508 0.00310881 0.03626943]
```

```
182   [0.          0.0238342   0.02901554  ...
0.08082902 0.04559585 0.16891192]
183   [0.          0.0134715   0.03419689 ...
0.03523316 0.36580311 0.34093264]
184   ...
185   [0.00103627 0.00518135 0.00725389  ...
0.          0.00207254 0.00207254]
186   [0.00103627 0.          0.          ...
0.01036269 0.00103627 0.0134715  ]
187   [0.          0.00103627 0.00621762  ...
0.0373057   0.0507772   0.02590674]]
188 data[17,:,:].shape is  (32, 32)
189 data[17,:,:].dtype is  float64
190 data[17,:,:] =
191   [[0.          0.02590674 0.04041451
...  0.00932642 0.01243523 0.04145078]
192   [0.          0.03419689 0.03316062  ...
0.07046632 0.04974093 0.15751295]
193   [0.          0.01554404 0.02797927  ...
0.02487047 0.36062176 0.25906736]
194   ...
195   [0.00310881 0.00621762 0.0134715    ...
0.00518135 0.00725389 0.00207254]
196   [0.00207254 0.00310881 0.00310881  ...
```

```
196   0.01761658 0.00207254 0.01554404]
197    [0.00207254 0.00310881 0.00310881 ...
      0.04974093 0.03937824 0.01658031]]
198   data[18,:,:].shape is  (32, 32)
199   data[18,:,:].dtype is  float64
200   data[18,:,:] =
201    [[0.         0.0134715  0.05906736
      ...  0.00725389 0.00518135 0.0373057 ]
202    [0.         0.02487047 0.03834197 ...
      0.06528497 0.04041451 0.1626943 ]
203    [0.         0.01243523 0.03005181 ...
      0.02694301 0.41036269 0.27357513]
204    ...
205    [0.00207254 0.00518135 0.00725389 ...
      0.00932642 0.01036269 0.00621762]
206    [0.00103627 0.00207254 0.00207254 ...
      0.03834197 0.         0.01968912]
207    [0.         0.00207254 0.00103627 ...
      0.04455959 0.05181347 0.03212435]]
208   data[19,:,:].shape is  (32, 32)
209   data[19,:,:].dtype is  float64
210   data[19,:,:] =
211    [[0.         0.02176166 0.04974093
      ...  0.00414508 0.00725389 0.04974093]
```

```
212   [0.00103627 0.02487047 0.03212435 ...
      0.06217617 0.04145078 0.17823834]
213   [0.         0.01036269 0.02487047 ...
      0.01865285 0.44248705 0.32124352]
214   ...
215   [0.00207254 0.00621762 0.01036269 ...
      0.00725389 0.00621762 0.00310881]
216   [0.         0.00207254 0.00207254 ...
      0.02487047 0.         0.0134715 ]
217   [0.         0.         0.00103627 ...
      0.05181347 0.04248705 0.02072539]]
218 data[20,:,:].shape is  (32, 32)
219 data[20,:,:].dtype is  float64
220 data[20,:,:] =
221   [[0.         0.01865285 0.04870466
      ... 0.00518135 0.00414508 0.04041451]
222   [0.         0.02797927 0.02487047 ...
      0.05181347 0.03419689 0.13264249]
223   [0.         0.01554404 0.01865285 ...
      0.01968912 0.44766839 0.33367876]
224   ...
225   [0.00310881 0.00518135 0.00829016 ...
      0.01761658 0.01139896 0.00621762]
226   [0.         0.         0.         ...
```

```
226  0.03316062 0.          0.01139896]
227   [0.          0.          0.00310881 ...
     0.03523316 0.04870466 0.02072539]]
228  /usr/local/lib/python2.7/dist-packages/
     matplotlib/pyplot.py:522:
     RuntimeWarning: More than 20 figures
     have been opened. Figures created
     through the pyplot interface (`
     matplotlib.pyplot.figure`) are retained
      until explicitly closed and may
     consume too much memory. (To control
     this warning, see the rcParam `figure.
     max_open_warning`).
229    max_open_warning, RuntimeWarning)
230  data[21,:,:].shape is  (32, 32)
231  data[21,:,:].dtype is  float64
232  data[21,:,:] =
233   [[0.          0.01761658 0.04248705
     ... 0.00621762 0.00932642 0.03108808]
234   [0.          0.02901554 0.03419689 ...
     0.04352332 0.02797927 0.1015544 ]
235   [0.          0.0134715  0.01658031 ...
     0.0238342  0.37202073 0.22590674]
236   ...
```

```
237    [0.00310881 0.00725389 0.01243523 ...
0.01450777 0.00621762 0.00310881]
238    [0.00103627 0.00310881 0.00310881 ...
0.02279793 0.00103627 0.00829016]
239    [0.          0.00207254 0.00103627 ...
0.03212435 0.02590674 0.00621762]]
240 data[22,:,:].shape is  (32, 32)
241 data[22,:,:].dtype is  float64
242 data[22,:,:] =
243    [[0.          0.03108808 0.04663212
... 0.00207254 0.00414508 0.03316062]
244    [0.          0.02901554 0.0238342   ...
0.03108808 0.02590674 0.0880829 ]
245    [0.          0.01554404 0.01865285 ...
0.00725389 0.28290155 0.20725389]
246    ...
247    [0.00310881 0.00621762 0.01139896 ...
0.00829016 0.00725389 0.00207254]
248    [0.00103627 0.00414508 0.00414508 ...
0.02487047 0.          0.00829016]
249    [0.          0.00414508 0.00414508 ...
0.0238342  0.01761658 0.00932642]]
250 data[23,:,:].shape is  (32, 32)
251 data[23,:,:].dtype is  float64
```

```
252 data[23,:,:] =
253  [[0.          0.01036269 0.03626943
     ...  0.00518135 0.00207254 0.02901554]
254  [0.          0.01450777 0.02072539 ...
     0.02797927 0.01554404 0.07875648]
255  [0.          0.00829016 0.0134715  ...
     0.00932642 0.17202073 0.17720207]
256  ...
257  [0.00414508 0.01036269 0.01036269 ...
     0.00829016 0.00829016 0.00207254]
258  [0.00103627 0.00207254 0.00103627 ...
     0.03005181 0.00207254 0.00932642]
259  [0.00103627 0.00103627 0.00103627 ...
     0.03419689 0.02694301 0.00518135]]
260 data[24,:,:].shape is  (32, 32)
261 data[24,:,:].dtype is  float64
262 data[24,:,:] =
263  [[0.          0.0238342  0.03626943
     ...  0.00103627 0.00207254 0.03005181]
264  [0.          0.02279793 0.03419689 ...
     0.01761658 0.01554404 0.07668394]
265  [0.          0.0134715  0.02072539 ...
     0.01036269 0.16580311 0.15233161]
266  ...
```

```
267   [0.00310881 0.00829016 0.01761658 ...
      0.01139896 0.00518135 0.00310881]
268   [0.         0.00207254 0.00207254 ...
      0.01658031 0.00103627 0.01036269]
269   [0.         0.         0.         ...
      0.03005181 0.0238342  0.00414508]]
270  data[25,:,:].shape is  (32, 32)
271  data[25,:,:].dtype is  float64
272  data[25,:,:] =
273   [[0.         0.0134715  0.04455959
      ... 0.00310881 0.00829016 0.02901554]
274   [0.         0.01865285 0.02279793 ...
      0.02072539 0.01450777 0.08497409]
275   [0.         0.0134715  0.01761658 ...
      0.00310881 0.18341969 0.15854922]
276   ...
277   [0.00207254 0.01243523 0.01761658 ...
      0.00414508 0.00103627 0.         ]
278   [0.         0.00310881 0.00207254 ...
      0.01865285 0.         0.00414508]
279   [0.         0.00414508 0.00310881 ...
      0.02176166 0.01450777 0.00310881]]
280  data[26,:,:].shape is  (32, 32)
281  data[26,:,:].dtype is  float64
```

```
282  data[26,:,:] =
283   [[0.          0.00932642 0.04870466
      ...  0.00414508 0.00518135 0.0238342 ]
284   [0.          0.0134715   0.01968912 ...
      0.02487047 0.01554404 0.09533679]
285   [0.          0.00932642 0.01554404 ...
      0.00518135 0.18238342 0.18445596]
286   ...
287   [0.00103627 0.00414508 0.00621762 ...
      0.00932642 0.00310881 0.         ]
288   [0.          0.          0.          ...
      0.0238342  0.          0.00725389]
289   [0.          0.          0.00207254 ...
      0.02072539 0.02487047 0.00932642]]
290  data[27,:,:].shape is  (32, 32)
291  data[27,:,:].dtype is  float64
292  data[27,:,:] =
293   [[0.00103627 0.02487047 0.04663212
      ...  0.00310881 0.00414508 0.02176166]
294   [0.          0.02072539 0.02694301 ...
      0.02279793 0.01139896 0.09119171]
295   [0.          0.00725389 0.01968912 ...
      0.01658031 0.22176166 0.17823834]
296   ...
```

```
297    [0.00207254 0.00310881 0.00932642 ...
0.00725389 0.00725389 0.00207254]
298    [0.          0.00207254 0.00414508 ...
0.00932642 0.          0.0134715 ]
299    [0.          0.00207254 0.00414508 ...
0.0238342  0.01761658 0.00310881]]
300 data[28,:,:].shape is  (32, 32)
301 data[28,:,:].dtype is  float64
302 data[28,:,:] =
303    [[0.          0.03005181 0.05492228
...  0.00103627 0.00207254 0.02176166]
304    [0.          0.03834197 0.0238342   ...
0.02072539 0.01761658 0.07875648]
305    [0.          0.02487047 0.01554404 ...
0.01243523 0.27046632 0.21036269]
306    ...
307    [0.00207254 0.00414508 0.00829016 ...
0.00932642 0.00518135 0.00207254]
308    [0.          0.00103627 0.00207254 ...
0.01865285 0.          0.01243523]
309    [0.          0.00103627 0.00103627 ...
0.02487047 0.03937824 0.00829016]]
310 data[29,:,:].shape is  (32, 32)
311 data[29,:,:].dtype is  float64
```

```
312 data[29,:,:] =
313  [[0.          0.02072539 0.0507772
     ... 0.00207254 0.00518135 0.04559585]
314  [0.          0.02279793 0.02487047 ...
 0.01968912 0.01450777 0.07772021]
315  [0.          0.01761658 0.01450777 ...
 0.01139896 0.15854922 0.14611399]
316  ...
317  [0.00414508 0.00518135 0.00621762 ...
 0.00725389 0.00932642 0.00207254]
318  [0.          0.00207254 0.00207254 ...
 0.02176166 0.00103627 0.00725389]
319  [0.          0.00103627 0.00414508 ...
 0.02694301 0.0238342  0.00725389]]
320 data[30,:,:].shape is  (32, 32)
321 data[30,:,:].dtype is  float64
322 data[30,:,:] =
323  [[0.          0.01865285 0.05699482
     ... 0.00829016 0.00310881 0.03834197]
324  [0.          0.01865285 0.03108808 ...
 0.03419689 0.01865285 0.09430052]
325  [0.          0.01450777 0.0238342  ...
 0.0238342  0.23834197 0.13989637]
326  ...
```

```
327  [0.00414508 0.00621762 0.00725389 ...
     0.00932642 0.00932642 0.00518135]
328  [0.         0.         0.00207254 ...
     0.01761658 0.         0.00932642]
329  [0.         0.         0.00103627 ...
     0.03419689 0.03108808 0.01554404]]
330  data[31,:,:].shape is  (32, 32)
331  data[31,:,:].dtype is  float64
332  data[31,:,:] =
333  [[0.         0.01139896 0.03419689
     ... 0.00829016 0.00310881 0.03937824]
334  [0.         0.02487047 0.02901554 ...
     0.03005181 0.01865285 0.09015544]
335  [0.         0.01865285 0.02072539 ...
     0.02590674 0.3015544  0.18031088]
336  ...
337  [0.00518135 0.00518135 0.00829016 ...
     0.00932642 0.01139896 0.00621762]
338  [0.         0.00103627 0.00310881 ...
     0.01139896 0.         0.00932642]
339  [0.         0.         0.         ...
     0.02694301 0.03108808 0.01036269]]
340  data[32,:,:].shape is  (32, 32)
341  data[32,:,:].dtype is  float64
```

```
342  data[32,:,:] =
343   [[0.00103627 0.03419689 0.04766839
       ... 0.00725389 0.01036269 0.04559585]
344   [0.          0.03523316 0.03005181 ...
      0.0238342  0.01139896 0.09222798]
345   [0.          0.0238342  0.01968912 ...
      0.02279793 0.24455959 0.19792746]
346   ...
347   [0.00207254 0.00414508 0.00829016 ...
      0.00414508 0.00932642 0.00829016]
348   [0.          0.          0.          ...
      0.00932642 0.          0.00932642]
349   [0.          0.          0.00103627 ...
      0.02072539 0.0238342  0.01036269]]
350  data[33,:,:].shape is  (32, 32)
351  data[33,:,:].dtype is  float64
352  data[33,:,:] =
353   [[0.          0.02694301 0.04248705
       ... 0.00310881 0.00414508 0.04663212]
354   [0.          0.03523316 0.02797927 ...
      0.02694301 0.0134715  0.08290155]
355   [0.00103627 0.01658031 0.02487047 ...
      0.01450777 0.23834197 0.14300518]
356   ...
```

```
357   [0.00518135 0.01243523 0.0134715  ...
      0.00829016 0.01139896 0.00310881]
358   [0.         0.00103627 0.00207254 ...
      0.00414508 0.         0.00310881]
359   [0.         0.         0.00310881 ...
      0.02279793 0.01554404 0.00932642]]
360 data[34,:,:].shape is  (32, 32)
361 data[34,:,:].dtype is  float64
362 data[34,:,:] =
363   [[0.         0.01554404 0.03419689
      ... 0.00310881 0.00725389 0.03626943]
364   [0.         0.02797927 0.02797927 ...
      0.02694301 0.01243523 0.07979275]
365   [0.         0.01865285 0.01968912 ...
      0.02279793 0.22487047 0.12953368]
366   ...
367   [0.00310881 0.00518135 0.00829016 ...
      0.00621762 0.00829016 0.00621762]
368   [0.         0.00103627 0.00103627 ...
      0.01139896 0.00103627 0.00932642]
369   [0.         0.         0.00103627 ...
      0.0238342  0.02176166 0.01139896]]
370 data[35,:,:].shape is  (32, 32)
371 data[35,:,:].dtype is  float64
```

```
372 data[35,:,:] =
373  [[0.00103627 0.02072539 0.03523316
     ... 0.00725389 0.00310881 0.02901554]
374  [0.          0.02176166 0.02797927 ...
   0.03626943 0.01243523 0.07357513]
375  [0.          0.01554404 0.02487047 ...
   0.01658031 0.19481865 0.10051813]
376  ...
377  [0.00103627 0.00310881 0.00829016 ...
   0.01036269 0.00932642 0.00310881]
378  [0.          0.00103627 0.00207254 ...
   0.01243523 0.          0.00829016]
379  [0.          0.          0.00103627 ...
   0.02797927 0.02590674 0.01450777]]
380 data[36,:,:].shape is  (32, 32)
381 data[36,:,:].dtype is  float64
382 data[36,:,:] =
383  [[0.          0.01658031 0.02694301
     ... 0.00414508 0.00414508 0.03834197]
384  [0.          0.01865285 0.02279793 ...
   0.01865285 0.00725389 0.08186528]
385  [0.          0.01036269 0.02901554 ...
   0.01450777 0.17927461 0.10466321]
386  ...
```

```
387    [0.00310881 0.00518135 0.00621762 ...
0.00518135 0.00103627 0.00310881]
388    [0.00207254 0.00310881 0.00103627 ...
0.00310881 0.          0.01243523]
389    [0.          0.00310881 0.00103627 ...
0.02694301 0.02590674 0.01658031]]
390 data[37,:,:].shape is  (32, 32)
391 data[37,:,:].dtype is   float64
392 data[37,:,:] =
393    [[0.          0.01554404 0.02279793
   ... 0.00414508 0.00518135 0.03212435]
394    [0.          0.02487047 0.02176166 ...
0.02694301 0.01761658 0.06217617]
395    [0.          0.0238342  0.02072539 ...
0.01243523 0.14196891 0.0984456 ]
396    ...
397    [0.00207254 0.00207254 0.00932642 ...
0.00829016 0.00725389 0.00414508]
398    [0.00103627 0.00518135 0.00518135 ...
0.00518135 0.          0.00932642]
399    [0.00103627 0.00518135 0.00207254 ...
0.01554404 0.01761658 0.01036269]]
400 data[38,:,:].shape is  (32, 32)
401 data[38,:,:].dtype is   float64
```

```
402  data[38,:,:] =
403   [[0.         0.02590674 0.04974093
      ...  0.00621762 0.00207254 0.05699482]
404   [0.         0.01968912 0.02694301 ...
      0.01865285 0.00725389 0.08497409]
405   [0.         0.01139896 0.01968912 ...
      0.0134715  0.15336788 0.1253886 ]
406   ...
407   [0.00207254 0.00414508 0.01036269 ...
      0.00621762 0.00518135 0.00207254]
408   [0.         0.         0.         ...
      0.01139896 0.         0.00518135]
409   [0.         0.         0.00103627 ...
      0.02590674 0.01658031 0.00621762]]
410  data[39,:,:].shape is  (32, 32)
411  data[39,:,:].dtype is  float64
412  data[39,:,:] =
413   [[0.         0.01139896 0.04663212
      ...  0.00725389 0.00207254 0.04041451]
414   [0.         0.01036269 0.01450777 ...
      0.0238342  0.01036269 0.09430052]
415   [0.         0.00518135 0.01554404 ...
      0.01450777 0.2        0.14818653]
416   ...
```

```
417    [0.00207254 0.00518135 0.00621762 ...
0.00621762 0.00518135 0.00103627]
418    [0.          0.00207254 0.00414508 ...
0.01036269 0.          0.00518135]
419    [0.          0.00207254 0.00310881 ...
0.01968912 0.01450777 0.00207254]]
420 data[40,:,:].shape is  (32, 32)
421 data[40,:,:].dtype is  float64
422 data[40,:,:] =
423    [[0.          0.0238342  0.01865285
... 0.00829016 0.00725389 0.0507772 ]
424    [0.          0.01968912 0.02590674 ...
0.03108808 0.02072539 0.09119171]
425    [0.          0.01036269 0.02279793 ...
0.01865285 0.20207254 0.10880829]
426    ...
427    [0.          0.00310881 0.01139896 ...
0.00932642 0.00621762 0.00621762]
428    [0.          0.00518135 0.00621762 ...
0.00725389 0.          0.00621762]
429    [0.          0.00207254 0.          ...
0.02072539 0.01968912 0.00414508]]
430 data[41,:,:].shape is  (32, 32)
431 data[41,:,:].dtype is  float64
```

```
432 data[41,:,:] =
433  [[0.          0.01658031 0.03005181
     ...  0.00518135 0.00207254 0.03108808]
434  [0.          0.01865285 0.01865285 ...
     0.01554404 0.00725389 0.08911917]
435  [0.          0.01450777 0.02072539 ...
     0.01554404 0.19170984 0.1119171 ]
436  ...
437  [0.          0.00103627 0.00518135 ...
     0.00414508 0.00518135 0.00103627]
438  [0.          0.00207254 0.00207254 ...
     0.01139896 0.          0.00103627]
439  [0.          0.00103627 0.00207254 ...
     0.01450777 0.0134715  0.00932642]]
440 data[42,:,:].shape is  (32, 32)
441 data[42,:,:].dtype is  float64
442 data[42,:,:] =
443  [[0.          0.0134715  0.04248705
     ...  0.00414508 0.00725389 0.04248705]
444  [0.          0.0134715  0.01450777 ...
     0.0238342  0.01036269 0.07357513]
445  [0.          0.00621762 0.0134715   ...
     0.01139896 0.16476684 0.08911917]
446  ...
```

```
447   [0.00103627 0.00310881 0.01139896 ...
   0.00518135 0.00310881 0.          ]
448   [0.          0.00310881 0.00518135 ...
   0.00518135 0.          0.00414508]
449   [0.          0.00414508 0.00207254 ...
   0.01036269 0.0134715  0.00310881]]
450 data[43,:,:].shape is  (32, 32)
451 data[43,:,:].dtype is  float64
452 data[43,:,:] =
453   [[0.          0.0134715   0.02694301
   ...  0.00621762 0.00621762 0.0373057 ]
454   [0.          0.00829016 0.0134715    ...
   0.03523316 0.01243523 0.07357513]
455   [0.          0.00725389 0.01139896 ...
   0.02901554 0.20414508 0.09948187]
456   ...
457   [0.00310881 0.00414508 0.00414508 ...
   0.00725389 0.00725389 0.          ]
458   [0.          0.00414508 0.00310881 ...
   0.01243523 0.          0.00518135]
459   [0.00103627 0.00207254 0.00103627 ...
   0.01658031 0.01036269 0.00207254]]
460 data[44,:,:].shape is  (32, 32)
461 data[44,:,:].dtype is  float64
```

```
462 data[44,:,:] =
463  [[0.          0.01243523 0.03108808
     ...  0.00207254 0.00207254 0.03316062]
464  [0.          0.01036269 0.01243523 ...
    0.01554404 0.01243523 0.04663212]
465  [0.          0.00829016 0.01036269 ...
    0.01761658 0.14507772 0.08290155]
466  ...
467  [0.00207254 0.00207254 0.00414508 ...
    0.00414508 0.00103627 0.          ]
468  [0.         0.          0.00103627 ...
    0.00103627 0.          0.00414508]
469  [0.         0.          0.00103627 ...
    0.00932642 0.01036269 0.00829016]]
470 data[45,:,:].shape is  (32, 32)
471 data[45,:,:].dtype is  float64
472 data[45,:,:] =
473  [[0.          0.01036269 0.0238342
     ...  0.00310881 0.00103627 0.03316062]
474  [0.          0.00725389 0.00414508 ...
    0.00932642 0.00414508 0.06839378]
475  [0.          0.00932642 0.01139896 ...
    0.00414508 0.13264249 0.0880829 ]
476  ...
```

```
477   [0.          0.          0.00621762 ...
0.00725389 0.00310881 0.          ]
478   [0.          0.00310881 0.00414508 ...
0.00518135 0.          0.00207254]
479   [0.          0.00310881 0.00103627 ...
0.01139896 0.01865285 0.00725389]]
480 data[46,:,:].shape is  (32, 32)
481 data[46,:,:].dtype is  float64
482 data[46,:,:] =
483   [[0.          0.0134715  0.02694301
...  0.00310881 0.00207254 0.02901554]
484   [0.          0.00829016 0.01139896 ...
0.01554404 0.00310881 0.05388601]
485   [0.          0.00518135 0.00725389 ...
0.01554404 0.13782383 0.07357513]
486   ...
487   [0.00207254 0.00103627 0.00621762 ...
0.00725389 0.00310881 0.          ]
488   [0.00103627 0.          0.          ...
0.00725389 0.          0.00414508]
489   [0.          0.          0.          ...
0.01968912 0.0134715  0.00725389]]
490 data[47,:,:].shape is  (32, 32)
491 data[47,:,:].dtype is  float64
```

```
492  data[47,:,:] =
493   [[0.          0.01139896 0.03212435
     ... 0.00310881 0.00103627 0.0238342 ]
494   [0.          0.01243523 0.00621762 ...
     0.01761658 0.00725389 0.05492228]
495   [0.          0.00518135 0.00310881 ...
     0.02072539 0.11709845 0.06528497]
496   ...
497   [0.00103627 0.00414508 0.00621762 ...
     0.00518135 0.00310881 0.          ]
498   [0.          0.          0.          ...
     0.00725389 0.          0.          ]
499   [0.          0.          0.          ...
     0.00518135 0.00621762 0.00207254]]
500
501  Process finished with exit code 0
502
```