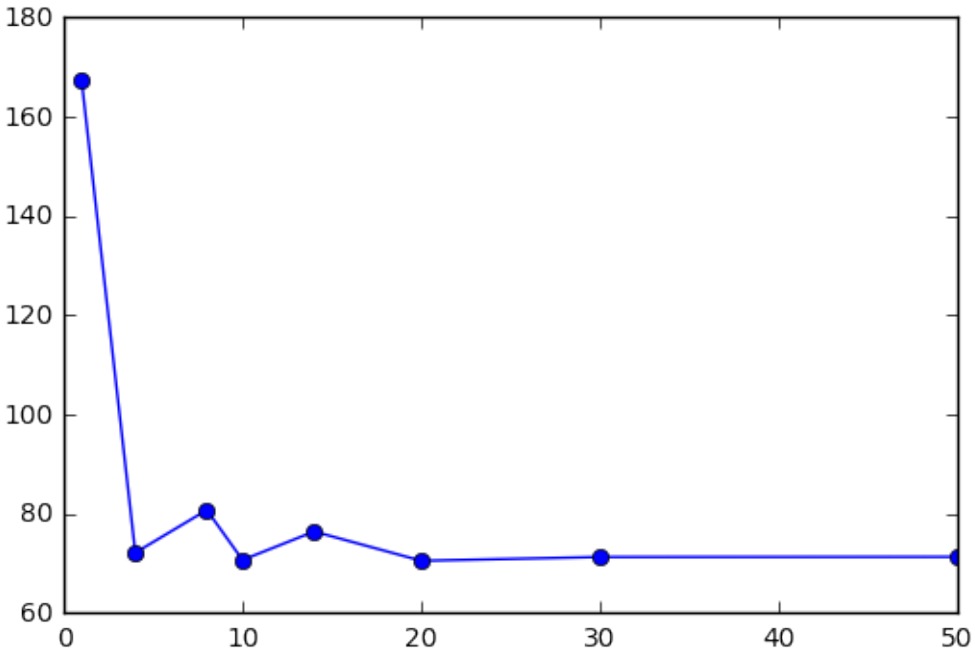
plots

November 15, 2016

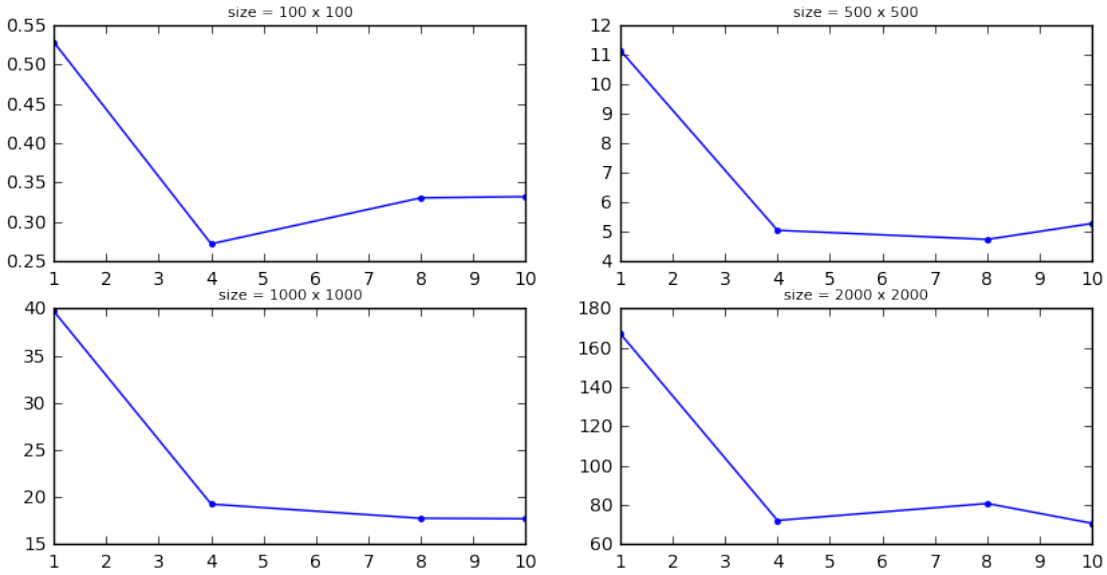
In [57]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
%matplotlib inline
```

In [58]:
```
data_numworkers = pd.read_csv("mpi_measurements_numworkers.csv")
data_size = pd.read_csv("mpi_measurements_size.csv")
```

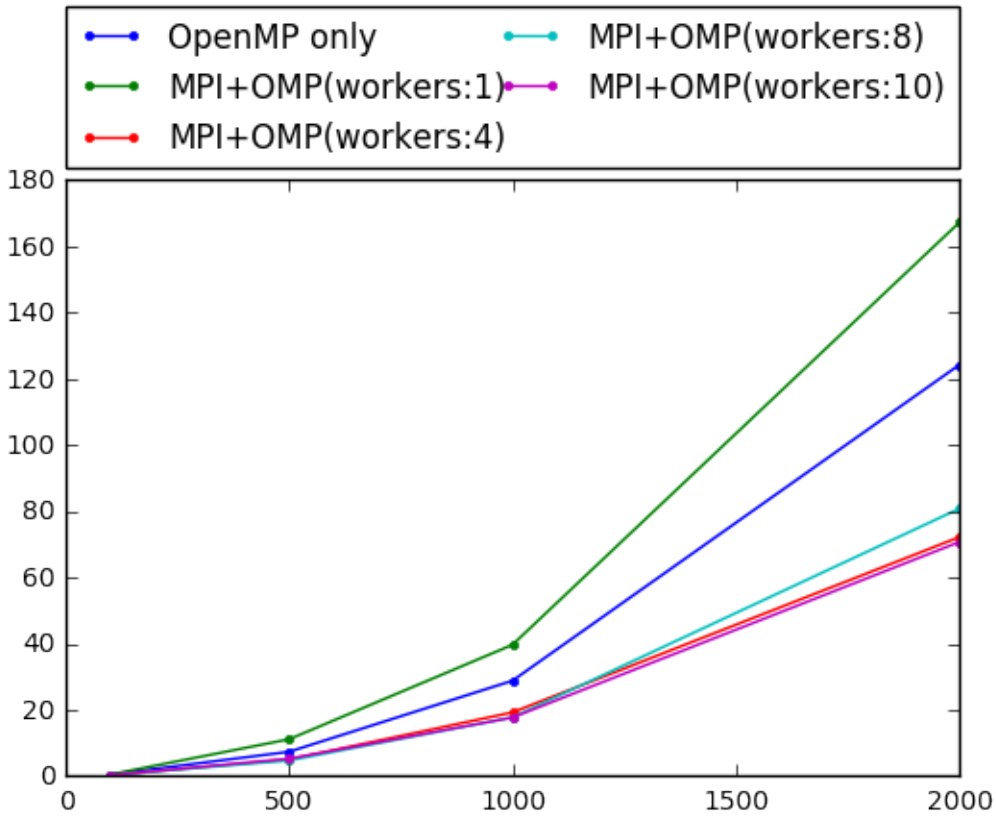
In [59]:
```
plt.figure()
print("     ")
x = list(data_numworkers['numworkers'])
y = list(data_numworkers['time'])
plt.plot(x, y, 'bo-')
plt.show()
```



In [60]:
```
print '    '

plt.figure(figsize=(10,5))

for s,i in zip([100,500,1000,2000],range(221,225)):
    time_numworkers = data_size.ix[data_size['size'] == s][['time', 'numworkers']]
    plt.subplot(i)
    plt.title('size = {0} x {0}'.format(s), fontsize=8)
    plt.plot(time_numworkers['numworkers'], time_numworkers['time'], 'b.-')

plt.show()
```



In [61]:
```
plt.figure()
plt.plot(data_omp['size'], data_omp['time'], '.-', label='OpenMP only')

for n in [1,4,8,10]:
    time_size = data_size.ix[data_size['numworkers'] == n][['time', 'size']]
    plt.plot(time_size['size'], time_size['time'], '.-', label='MPI+OMP(workers:{})'.fo

plt.legend(bbox_to_anchor=(0., 1.02, 1., .102), loc=3, ncol=2, \
                mode="expand", borderaxespad=0.)
plt.show()
```


OpenMP only
MPI+OMP(workers:1)
MPI+OMP(workers:4)
MPI+OMP(workers:8)
MPI+OMP(workers:10)
180
160
140
120
100
80
60
40
20
0
0
500
1000
1500
2000