

1. The code was run on OSU server flip2
2. At the time the code was executed the load average was 1.02, 1.06, 1.05
Using 1 thread
 - peak performance was 168.40 MegaMults/Sec
 - average performance was 167.31 MegaMults/Sec
 - average time was 11.91 MillisecondsUsing 4 threads
 - peak performance was 661.51 MegaMults/Sec
 - average performance was 652.78 MegaMults/Sec
 - average time was 3.09 Milliseconds
3. 4 thread to 1 thread speed up was: 3.85
4. When the number of threads were set to 4 the passes of the for loop were divided up between the 4 different threads reducing the time it took for the program to perform the calculations by nearly $\frac{1}{4}$ th.
5. $F_p = (4./3.) * (1. - (1./3.85)) = \mathbf{0.9870}$