

Homework #7 OpenMP Matrix-Vector Multiplication
Due: Friday, April 13th, before 2:00pm

Serial Code

Download the Matrix-Vector serial code (Lab7_serialcode.zip) from <https://learn.colorado.edu>. To compile the code, unzip the file, navigate to Lab7_serialcode directory, and type “make”. Run the code by typing:

```
./omp_MatVecMultiply -m 80000 -n 8000
```

Homework

Modify this code such that it utilizes OpenMP and run this using 2, 4, 8, and 12 threads. Show the speedup you get by plotting your number in a graph. Also display them in a table.

1. What kind of speedup do you get?
2. What happens when you run this on 2 nodes with 24 threads?

That's it!

Assignment Submission

Create a file named username-hw7.tar.gz that contains your modified source code, the Makefile, and a PDF of your writeup. As usual, please do not include object files or executables. Submit the tar file to the d2L site by the due date.