

Solution of serie 8

Remark: The results presented here were obtained on altix with no other user connected!

Exercise 1 The results are in the file *gem.out*. Notice that *dgemv* has only a small parallelization effect on two processors. For *dgemm*, speedup is present until sixteen processors, but it's rate is better for a small number of processors. For example, one has:

$$S(2) = 1.98, S(8) = 7.09, S(16) = 11.45.$$

Plots are given in Figure 1.

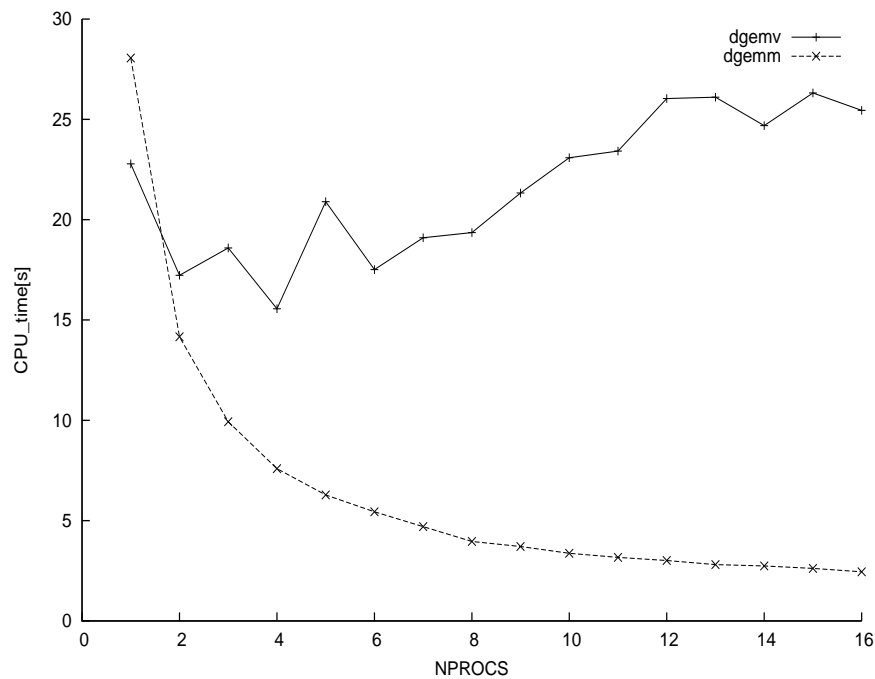


Fig. 1

Exercise 2 One can find results in the file `lap.out`. A monotone speedup occurs until nine processors and one has:

$$S(2) = 1.87, S(4) = 2.60, S(8) = 3.34.$$

This is due to the same effect in Blas3 on this machine. The CPU time is plotted in Figure 2.

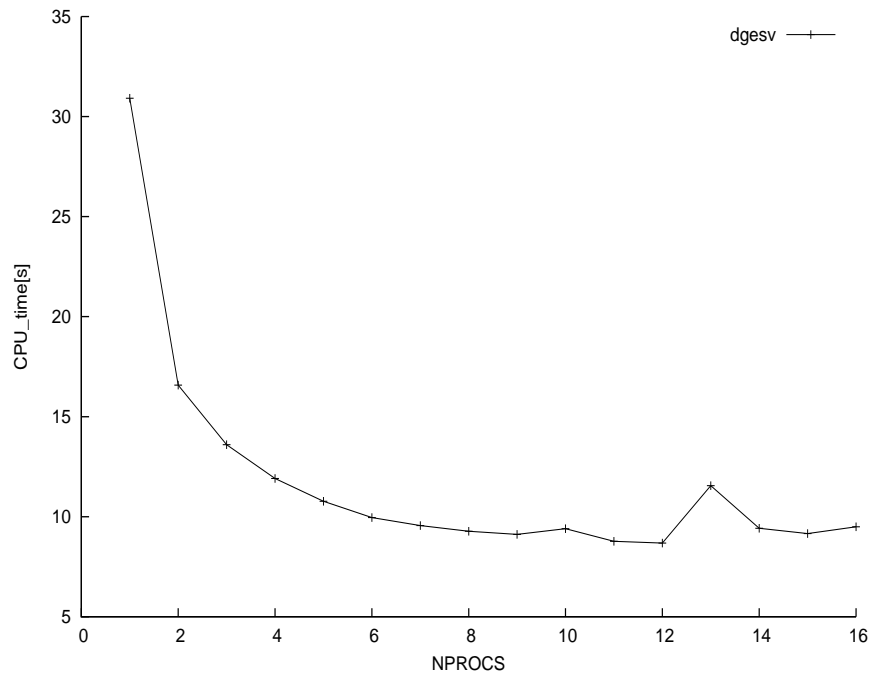


Fig. 2