Here is a comparison of run-times of a C-code that intergrate the complex Ginzburg-Landau equation (CGLe) using 256 points in space, and 50000*50 steps in time. the time-interval dt is 0.01, and CGLe parameters are $\alpha = 1.5$, $\beta = -1.2$, is created that contains 50000*256*2 floats, *i.e.*, the file size is 50000*256*2*4=102.400.000 bytes.

The source code is always the same, but I varied the compiler and/or the compiler options, as well as the machine and the OS used.

Here are the results:

processor	OS / platform	compiler	options	time (s)
Celeron 800 (wild)	Linux RH 7.2	GCC 2.96 (2000/07/31)	-O2	333(n)
PIII 800 (light)	Linux RH 7.2	GCC 2.96 (2000/07/31)	-O2	274(l) 374(n)
bi-PIII (zero)	Linux RH 7.2	GCC 2.96 (2000/07/31)	-O2	263(l)
bi-alpha (hard)	Compaq Tru64 Unix V	Compaq C V6.3-026	-O2	252(n)
PIII 450 coppermine	Win2k + DJGPP 2.03	GCC 3.1	-O2	
PIII 450 coppermine	Win2k + Cygwin	GCC 3.1	-O2	478(l)
PIII 450 coppermine	Win2k + mingw	GCC 3.1	-O2	

notes:

- on bi-processor machines, only one processor was used at a time.
- when multiple run-times are given, they correspond to different runs, one saving the output file locally (l), and one saving the output file on a NFS (n). The time-difference then gives an indication of what is the transfer time for a roughly 100Mb file on the sub-network used.