

|  | Optimization+platform dependent options for compilation and execution times for my_dgesv |             |  |             |
|--|--|-------------|--|-------------|
|  | icc (18.0.5)   |             | gcc (8.3.0)  |             |
|  | s  |             | s  |             |
| No opt.  | Options: -O0 dgesv_icc   |             | Options: -O0 dgesv_gcc   |             |
| dgesv_icc  | Exec time (small): 2048  | 27,76178067 | Exec time (small):   | 18,53197733 |
|  | Exec time (medium): 4096   | 281,7520933 | Exec time (medium):  | 194,9221483 |
|  | Exec time (large): 6144  | 1121,143839 | Exec time (large):   | 831,8588237 |
| Opt level 1  | Options: -O1 -mkl -o   |             | Options: -O1 -lm -o dgesvgcc_O1<br>dgesv_gcc.c                                 |             |
| dgesv_O1   | Exec time (small):   | 28,80360233 | Exec time (small):   | 19,598586   |
|  | Exec time (medium):  | 296,3486877 | Exec time (medium):  | 207,0819427 |
|  | Exec time (large):   | 1145,316106 | Exec time (large):   | 858,7800587 |
| Opt level 2 + <u>specific arch</u>                         | Options: -O2 -fvar-tracking-assignments -mkl -o  |             | Options: gcc -O2 -fvar-tracking-assignments -lm -o dgesvgcc_O2                 |             |
| dgesv_O2fvta   | Exec time (small):   | 28,80360233 | Exec time (small):   | 19,64040167 |
|  | Exec time (medium):  | 296,3486877 | Exec time (medium):  | 205,7754987 |
|  | Exec time (large):   | 1145,316106 | Exec time (large):   | 848,9206603 |
| Opt level 3 + <u>specific arch</u>                         | Options: -O3 -fvar-tracking-assignments -mkl -o  |             | Options: gcc -O3 -fvar-tracking-assignments -lm -o dgesvgcc_O3                 |             |
| dgesvO3fvta  | Exec time (small):   | 28,338407   | Exec time (small):   | 20,00662833 |
|  | Exec time (medium):  | 283,5991257 | Exec time (medium):  | 202,6158987 |
|  | Exec time (large):   | 1119,950644 | Exec time (large):   | 857,561703  |
| Opt level fast + <u>specific arch</u>                      | Options: -Ofast -fvar-tracking-assignments -mkl -o                                       |             | Options: gcc -Ofast -fvar-tracking-assignments -lm -o dgesvgcc_Of              |             |
| dgesvOfastfvta   | Exec time (small):   | 26,80581567 | Exec time (small):   | 19,69903367 |
|  | Exec time (medium):  | 285,939378  | Exec time (medium):  | 203,7829357 |
|  | Exec time (large):   | 1120,535811 | Exec time (large):   | 851,9475183 |
| Opt level fast + specific arch + <u>interproc opt/anal</u> | Options: -Ofast -ipo -ip -fvar-tracking-assignments -mkl -o                              |             | Options: gcc -Ofast -fipa-pta -fvar-tracking-assignments -lm -o dgesvgcc_Ofipa |             |
| [-ip (icc) / -fipa-pta (gcc)]<br>dgesvOipfastfvta          | Exec time (small):   | 27,78025467 | Exec time (small):   | 19,8438     |
|  | Exec time (medium):  | 280,6614327 | Exec time (medium):  | 204,9033637 |
|  | Exec time (large):   | 1117,029717 | Exec time (large):   | 856,6046713 |

Tamaño de la matriz A para ejecuciones, según to Makefile:

- small size: 2048 x 2048 (execute as ./dgesv 2048)
- medium size: 4096 x 4096 (execute as ./dgesv 4096)
- large size: 6144 x 6144 (execute as ./dgesv 6144)