

Github repository with your code (complete URL): <https://github.com/dussauttho/hpctools>

I reduced the size of the matrices because it was way too long to run.

	<b>Optimization+platform dependent options for compilation and execution times for my_dgesv</b>	
	<b>icc (18.0.1)</b> ( <i>wasn't able to access remotely the supercomputer with my proxy on my student laptop</i> )	<b>gcc (8.1.0)</b>
No opt.	Options: -O0 Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -O0 Exec time (small): 5.82949 sec Exec time (medium): 3 min 8.722 sec Exec time (large): 25 min 25 sec
Opt level 1	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -O1 Exec time (small): 0.922566 sec Exec time (medium): 30.983 sec Exec time (large): 4 min 11.336 sec
Opt level 2 + <u>specific arch</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -O2 -march=native Exec time (small): 0.37471 sec Exec time (medium): 14.718 sec Exec time (large): 1 min 54.15 sec
Opt level 3 + <u>specific arch</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -O3 -march=native Exec time (small): 0.379226 sec Exec time (medium): 12.9686 sec Exec time (large): 1 min 48.389 sec
Opt level fast + <u>specific arch</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -Ofast -march=native Exec time (small): 0.374139 sec Exec time (medium): 12.9846 sec Exec time (large): 1 min 50.236 sec
Opt level fast + specific arch + <u>interproc opt/anal</u> [ipo (icc) / -fipa-pta (gcc)]	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -Ofast -march=native -fipa-pta Exec time (small): 0.403785 sec Exec time (medium): 14.1246 sec Exec time (large): 1 min 51.211 sec
<u>All</u> previous opts + <u>pgo</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -std=c++11 -Ofast -fipa-pta -march=native -fipa-pta -fprofile-generate Exec time (small): 0.395749 sec Exec time (medium): 12.8531 sec Exec time (large): 1 min 38.0839 sec

Matrix A size for executions, according to Makefile:

- small size: 50 x 50 (execute as ./dgesv 50)
- medium size: 100 x 100 (execute as ./dgesv 100)
- large size: 150 x 150 (execute as ./dgesv 150)

Execute at least 3 times per combination, taking the middle value (median). The relevant time is the execution time for your implementation of `my_dgesv` (i.e. your solver!).

**Description and relevant information extracted from the results:**