

Github repository with your code (complete URL):

	<b>Optimization+platform dependent options for compilation and execution times for my_dgesv</b>	
	<b>icc (18.0.1)</b>	<b>gcc (8.1.0)</b>
No opt.	Options: -O0 Exec time (small): Exec time (medium): Exec time (large):	Options: -O0 Exec time (small): 1s 800 Exec time (medium): 50s 150 Exec time (large): 5m55s 543
Opt level 1	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -O1 Exec time (small): 0s 378 Exec time (medium): 10s 682s Exec time (large): 1m21s 582
Opt level 2 + <u>specific arch</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -O2 -march=native Exec time (small): 0s 503 Exec time (medium): 14s 396 Exec time (large): 2min3s015
Opt level 3 + <u>specific arch</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -O3 -march=native Exec time (small): 0s 405 Exec time (medium): 10s008 Exec time (large): 1m 19s 794
Opt level fast + <u>specific arch</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -Ofast -march=native Exec time (small): 0s 297 Exec time (medium): 7s 809 Exec time (large): 1m 5s 563
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: -Ofast -march=native -fipa-pta Exec time (small): 0s 498 Exec time (medium): 15s 842 Exec time (large): 2m5s 753
<u>All</u> previous opts + <u>pgo</u>	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -Ofast -march=native -fipa-pta -fprofile-generate Exec time (small): 0s 445 Exec time (medium): 15s 720 Exec time (large): 2m5s 064
Others: autovectorizing? Autoparallelism?	Options: Exec time (small): Exec time (medium): Exec time (large):	Options: -floop-parallelize-all -flra-remat -flto Exec time (small): 1s 589 Exec time (medium): 49s 253 Exec time (large): 6m19s 022

Matrix A size for executions, according to Makefile:

- small size: 50 x 50 (execute as ./solver\_QR\_Givens 50)
- medium size: 100 x 100 (execute as ./solver\_QR\_Givens 100)

- large size: 150 x 150 (execute as `./solver_QR_Givens 150`)

Execute at least 3 times per combination, taking the middle value (median). The relevant time is the execution time for your implementation of `solver_QR_Givens.c`

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

My git repository :

[https://github.com/MatthewRaza/Task\\_HPCTools/tree/Task2](https://github.com/MatthewRaza/Task_HPCTools/tree/Task2)