

## GCC COMPILER OPTIMIZATION LEVELS

-O0

reduce compilation time & make debugging produce the expected results. (default)

-O1

optimize. takes a bit more time, & a lot of memory for large fn.

-O2

optimize even more. nearly all supported optimizations that do not involve a space-speed tradeoff.

-O3

optimize yet more. also turns on the -finline-functions, -funswitch-loops, -fpredictive-commoning, -fgcse-after-reload, -ftree-vectorize, -fvect-cost-model, -ftree-partial-pre, -fipa-cp-clone. options.

-Ofast

disregard strict standards compliance. it turns on -ffast-math, fortran specific -fno-protect-parens, -fstack-arrays.

-Os

optimize for size. enables all -O2 optimizations that do not typically increase code size, it also performs further optimizations designed to reduce code size.