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Gentoo MacBookProR 2012 Optim

Gentoo 5.10 GCC 10.2 lto-overlay

Automated Executive Summary

Clear Linux GCC 9.1 O2 ivybridge had the most wins, coming in first place for 21% of the tests.

Based on the geometric mean of all complete results, the fastest (Clear Linux GCC 9.1 O2) was 1.647x the speed of the slowest (Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security).

Test Systems:

Linux 4.14.118 02 GCC 8.3 02 ivybridge

Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E,

Graphics: Intel 3rd Gen Core 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD + Q3277, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 4.14.118-gentoo (x86_64), Desktop: MATE 1.22.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, Compiler: GCC 8.3.0 + Clang 8.0.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 2560x1440

Environment Notes: CFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe CXXFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe
Disk Notes: CFQ / data=ordered,discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.6.8
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

Linux 4.14.118 02 LLVM 8 02 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: Intel 3rd Gen Core 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD + Q3277, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 4.14.118-gentoo (x86_64), Desktop: MATE 1.22.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, Compiler: Clang 8.0.0 + GCC 8.3.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 2560x1440

Environment Notes: CFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe-fuse-ld=lld CXXFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe-fuse-ld=lld
Compiler Notes: DEBUG build; Default target: x86_64-pc-linux-gnu; Host CPU: ivybridge
Disk Notes: CFQ / data=ordered,discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.6.8
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: Intel 3rd Gen Core 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD + Q3277, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 4.14.118-gentoo (x86_64), Desktop: MATE 1.22.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, Compiler: GCC 8.3.0 + Clang 8.0.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 2560x1440

Environment Notes: CFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe CXXFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe
Disk Notes: CFQ / data=ordered,discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.6.8
Security Notes: __user pointer sanitization + disabled STIBP: disabled + PTE Inversion

Linux 4.19.42 02 GCC 8.3 02 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: Intel NVIDIA NVE7 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 4.19.42-gentoo (x86_64), Desktop: MATE 1.22.0, Display Server: X Server 1.20.4, Display Driver: nouveau 1.0.16, Compiler: GCC 8.3.0 + Clang 8.0.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 2880x1800

Environment Notes: CFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe CXXFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe
Disk Notes: CFQ / discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.6.8
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

Linux 5.1.1 02 GCC 8.3 02 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: Intel NVIDIA NVE7 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 5.1.1-gentoo (x86_64), Desktop: MATE 1.22.0, Display Server: X Server 1.20.4, Display Driver: nouveau 1.0.16, Compiler: GCC 8.3.0 + Clang 8.0.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 2880x1800

Environment Notes: CFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe CXXFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe
Disk Notes: MQ-DEADLINE / discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.6.8
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

Linux 5.1.1 02 GCC 9.1 02 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: Intel NVIDIA NVE7 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD + Q3277, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 5.1.1-gentoo (x86_64), Desktop: MATE 1.22.0, Display Server: X Server 1.20.4, Display Driver: nouveau 1.0.16, Compiler: GCC 9.1.0 + Clang 8.0.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: CFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe CXXFLAGS=-O2-march=ivybridge-mtune=ivybridge-pipe
Disk Notes: MQ-DEADLINE / discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.6.8
Security Notes: KPTI + l1tf: Mitigation of PTE Inversion + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

Clear Linux GCC 9.1 O2

Clear Linux GCC 9.1 O2 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: NVIDIA NVE7 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Clear Linux OS 29540, Kernel: 5.0.17-765.native (x86_64), Desktop: Xfce 4.12, Display Server: X Server 1.20.4,

Display Driver: nouveau 1.0.16, OpenGL: 4.3 Mesa 19.2.0-devel, Vulkan: 1.1.102, Compiler: GCC 9.1.1 20190520 gcc-9-branch@271393 + Clang 8.0.0 + LLVM 8.0.0, File-System: ext4, Screen Resolution: 2880x1800

Environment Notes: CFFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl now-Wl-z-Wl relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl-sort-common-Wl--enable-new-dtags FFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags CXXFLAGS=-march=ivybridge-mtune=ivybridge-O2 MESA_GLSL_CACHE_DISABLE=0 CFLAGS=-march=ivybridge-mtune=ivybridge-O2 THEANO_FLAGS=floatX=float32 openmp=true gcc.cxxflags="-ftree-vectorize-mavx"
Compiler Notes: --build=x86_64-generic-linux --disable-libmpx --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-clocale=gnu --enable-default-pie --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-gcc-major-version-only --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Disk Notes: MQ-DEADLINE / relatime,rw,stripe=256
Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.7.3
Security Notes: l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Vulnerable: Clear buffers attempted no microcode; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

OpenMandriva LX4 RC1 GCC ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: NVIDIA NVE7 1GB, Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: OpenMandrivaLinux 4.0, Kernel: 5.1.3-desktop-1omv4000 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.3 Mesa 19.1.0-rc3, Compiler: GCC 9.1.0 20190503 + Clang 8.0.1 + LLVM 8.0.1, File-System: ext4, Screen Resolution: 2880x1800

Kernel Notes: dm_mod.use_blk_mq=1
Environment Notes: CXXFLAGS=-march=ivybridge-mtune=ivybridge-O2 CFLAGS=-march=ivybridge-mtune=ivybridge-O2
Disk Notes: MQ-DEADLINE / discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 3.7.3
Security Notes: KPTI + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

APPLE SSD SM256E - Intel Core i7-3615QM

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (253.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E, Graphics: NVIDIA NVE7 1GB, Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom NetXtreme BCM57762 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: OpenMandrivaLinux 4.0, Kernel: 5.1.3-desktop-1omv4000 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.3 Mesa 19.1.0-rc3, Compiler: Clang 8.0.1 + GCC 9.1.0 20190503 + LLVM 8.0.1, File-System: ext4, Screen Resolution: 2880x1800

Kernel Notes: dm_mod.use_blk_mq=1
Environment Notes: CXXFLAGS=-march=ivybridge-mtune=ivybridge-O2 CFLAGS=-march=ivybridge-mtune=ivybridge-O2
Compiler Notes: Optimized build with assertions; Default target: x86_64-pc-linux-gnu; Host CPU: ivybridge
Disk Notes: MQ-DEADLINE / discard,noatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 3.7.3
Security Notes: KPTI + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

Clear Linux GCC 9.2 HDD

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (259.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8192MB, Disk: 251GB APPLE SSD SM256E + 500GB Generic, Graphics: NVIDIA NVE7 1GB (1200MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Clear Linux OS 32480, Kernel: 5.5.6-914.native (x86_64), Desktop: Xfce 4.15, Display Server: X Server 1.20.7, Display Driver: nouveau 1.0.16, OpenGL: 4.3 Mesa 20.1.0-devel, Vulkan: 1.2.131, Compiler: GCC 9.2.1 20200224 gcc_9_2_0_release-659-gf9be6e10c9 + Clang 9.0.1 + LLVM 9.0.1, File-System: ext4, Screen Resolution: 2880x1800

Environment Notes: CFFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ftree-loop-distribute-patterns -Wl,-z -Wl,now -Wl,-z -Wl,relro -malign-data=abi -fno-semantic-interposition -ftree-vectorize -ftree-loop-vectorize -Wl,-sort-common -Wl,--enable-new-dtags" FFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ftree-loop-distribute-patterns -Wl,-z -Wl,now -Wl,-z -Wl,relro -malign-data=abi -fno-semantic-interposition -ftree-vectorize -ftree-loop-vectorize -Wl,--enable-new-dtags -Wa,-mbranches-within-32B-boundaries" CXXFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -Wformat -Wformat-security -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ftree-loop-distribute-patterns -Wl,-z -Wl,now -Wl,-z -Wl,relro -fno-semantic-interposition -ffat-lto-objects -fno-trapping-math -Wl,-sort-common -Wl,--enable-new-dtags -mtune=skylake -Wa,-mbranches-within-32B-boundaries -fvisibility-inlines-hidden -Wl,--enable-new-dtags" MESA_GLSL_CACHE_DISABLE=0 CFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -Wformat -Wformat-security -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ftree-loop-distribute-patterns -Wl,-z -Wl,now -Wl,-z -Wl,relro -fno-semantic-interposition -ffat-lto-objects -fno-trapping-math -Wl,-sort-common -Wl,--enable-new-dtags -mtune=skylake -Wa,-mbranches-within-32B-boundaries" THEANO_FLAGS="floatX=float32,openmp=true,gcc.cxxflags="-ftree-vectorize -mavx""
Compiler Notes: --build=x86_64-generic-linux --disable-libmpx --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-clocale=gnu --enable-default-pie --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-gcc-major-version-only --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Disk Notes: BFQ / relatime,rw,stripe=256
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x21
Python Notes: Python 3.8.1
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + tsx_async_abort: Not affected

Gentoo 5.6.3 03 GCC 9.3 ivybridge

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (259.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8GB, Disk: 251GB APPLE SSD SM256E, Graphics: NVIDIA GeForce GT 650M 1GB (797/2508MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo 2.6, Kernel: 5.6.4-gentoo-x86_64 (x86_64), Desktop: MATE 1.24.0, Display Server: X Server 1.20.7, Display Driver: NVIDIA 440.82, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 10.2.159, Compiler: GCC 9.3.0 + Clang 9.0.1 + LLVM 9.0.1 + CUDA 10.2, File-System: ext4, Screen Resolution: 2880x1800

Environment Notes: CFLAGS="-march=ivybridge -O3 -pipe -falign-functions=32 -fuse-linker-plugin" CXXFLAGS="-march=ivybridge -O3 -pipe -falign-functions=32 -fuse-linker-plugin" LDFLAGS="-Wl,-O2 -Wl,--as-needed"
Disk Notes: MQ-DEADLINE / noatime,rw
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x21
OpenCL Notes: GPU Compute Cores: 384
Python Notes: Python 3.6.10
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Vulnerable + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + tsx_async_abort: Not affected

FreeBSD 12.2 Default Clang 10.0.1

Processor: Intel Core i7-3615QM @ 2.30GHz (8 Cores), Motherboard: Apple MacBookPro10 1 1.0, Chipset: Intel 3rd Gen Core DRAM, Memory: 8GB, Disk: 215GB, Graphics: NVIDIA GeForce GT 650M 981MB, Audio: NVIDIA (0x0e1b) HDA, Monitor: Color LCD

OS: FreeBSD, Kernel: 12.2-RELEASE-p1 (x86_64), Desktop: Xfce 4.14, Display Server: X Server 1.20.9, Display

Gentoo MacBookProR 2012 Optim

Driver: NVIDIA 1.0.0, Compiler: Clang 10.0.1, File-System: zfs, Screen Resolution: 2880x1800

Python Notes: Python 3.7.9
Security Notes: KPTI

Gentoo 5.10 GCC 10.2 lto-overlay

Processor: Intel Core i7-3615QM @ 3.30GHz (4 Cores / 8 Threads), Motherboard: Apple Mac-C3EC7CD22292981F (262.0.0.0.0 BIOS), Chipset: Intel 3rd Gen Core DRAM, Memory: 8GB, Disk: 251GB APPLE SSD SM256E, Graphics: NVIDIA GeForce GT 650M 1GB (810/2508MHz), Audio: Cirrus Logic CS4206, Monitor: Color LCD, Network: Broadcom NetXtreme BCM57786 PCIe + Broadcom BCM4331 802.11a/b/g/n

OS: Gentoo/Linux, Kernel: 5.10.2-xanmod1-x86_64-gcc (x86_64), Desktop: Xfce 4.16, Display Server: X Server 1.20.10, Display Driver: NVIDIA 455.45.01, OpenGL: 4.6.0, Compiler: GCC 10.2.0 + Clang 11.0.0Target: + LLVM 11.0.0, File-System: ext4, Screen Resolution: 2880x1800

Kernel Notes: i915.fastboot=1
Disk Notes: NONE / discard,noatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x21
OpenCL Notes: GPU Compute Cores: 384
Python Notes: Python 3.9.1
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: vulnerable + mds: Vulnerable; SMT vulnerable + meltdown: Vulnerable + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Vulnerable: No microcode + tsx_async_abort: Not affected

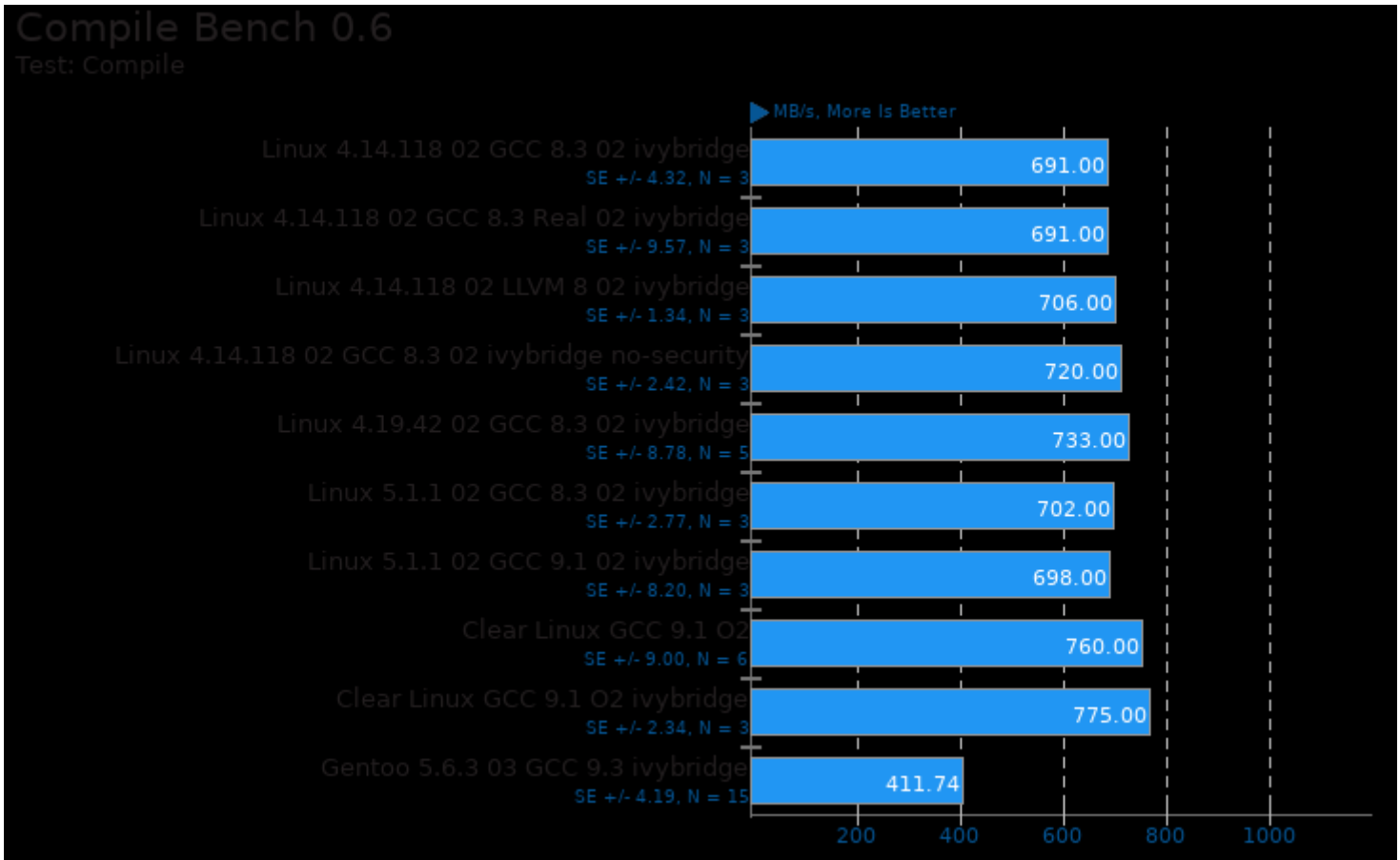
	Linux 4.14.118 02 GCC 8.3 02 ivybridge	Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge	Linux 4.14.118 02 LLVM 8 02 ivybridge	Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security	Linux 4.19.42 02 GCC 8.3 02 ivybridge	Linux 5.1.102 GCC 8.3 02 ivybridge	Linux 5.1.102 GCC 9.1 02 ivybridge	Clear Linux GCC 9.1 O2	Clear Linux GCC 9.1 O2 ivybridge	Open Mandriva LX4 RC1 GCC ivybridge	APPLE SSD SM256E - Intel Core i7-3615QM	Clear Linux GCC 9.2 HDD	Gentoo 5.6.303 GCC 9.3 ivybridge	FreeBSD 12.2 Default Clang 10.0.1	Gentoo 5.10 GCC 10.2 lto-overlay
Compile Bench - Compile (MB/s)	691	691	706	720	733	702	698	760	775				411.74		
Normalized	89.16%	89.16%	91.1%	92.9%	94.58%	90.58%	90.06%	98.06%	100%				53.13%		
Standard Deviation	1.1%	2.4%	0.3%	0.6%	2.7%	0.7%	2%	2.9%	0.5%				3.9%		
Compile Bench - Initial Create	198	196	201	209	204	199	201	288	289				223.27		
Normalized	68.51%	67.82%	69.55%	72.32%	70.59%	68.86%	69.55%	99.65%	100%				77.26%		
Standard Deviation	3.1%	2.1%	2.7%	3.5%	2.2%	6%	5.3%	1.9%	0.7%				12.1%		
Dbench - 12 (MB/s)	328	327	329	329	175	317	317	336	334		310	30.6862	225.404		320.742
Normalized	97.62%	97.32%	97.92%	97.92%	52.08%	94.35%	94.35%	100%	99.4%		92.26%	9.13%	67.08%		95.46%

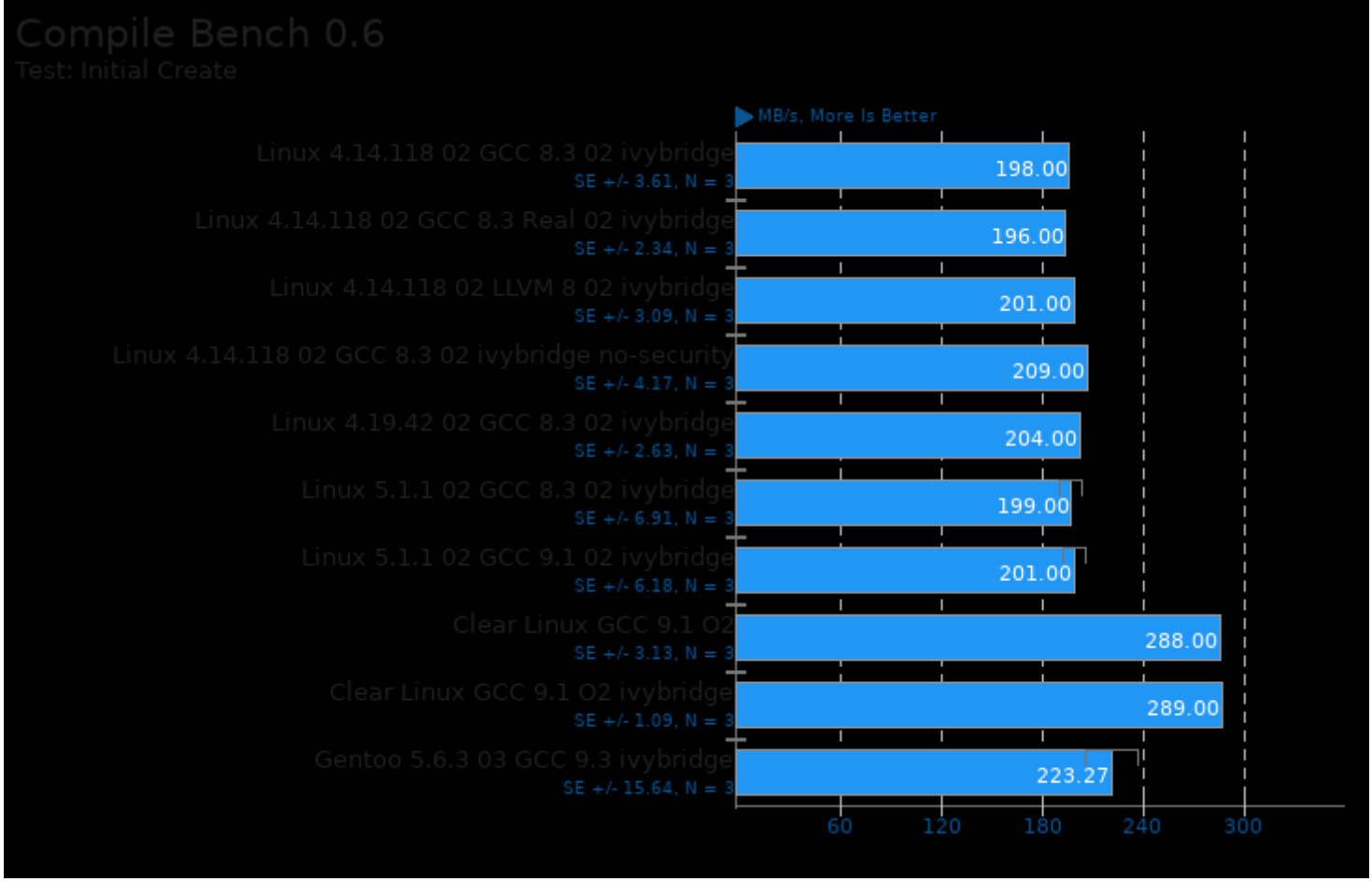
Gentoo MacBookProR 2012 Optim

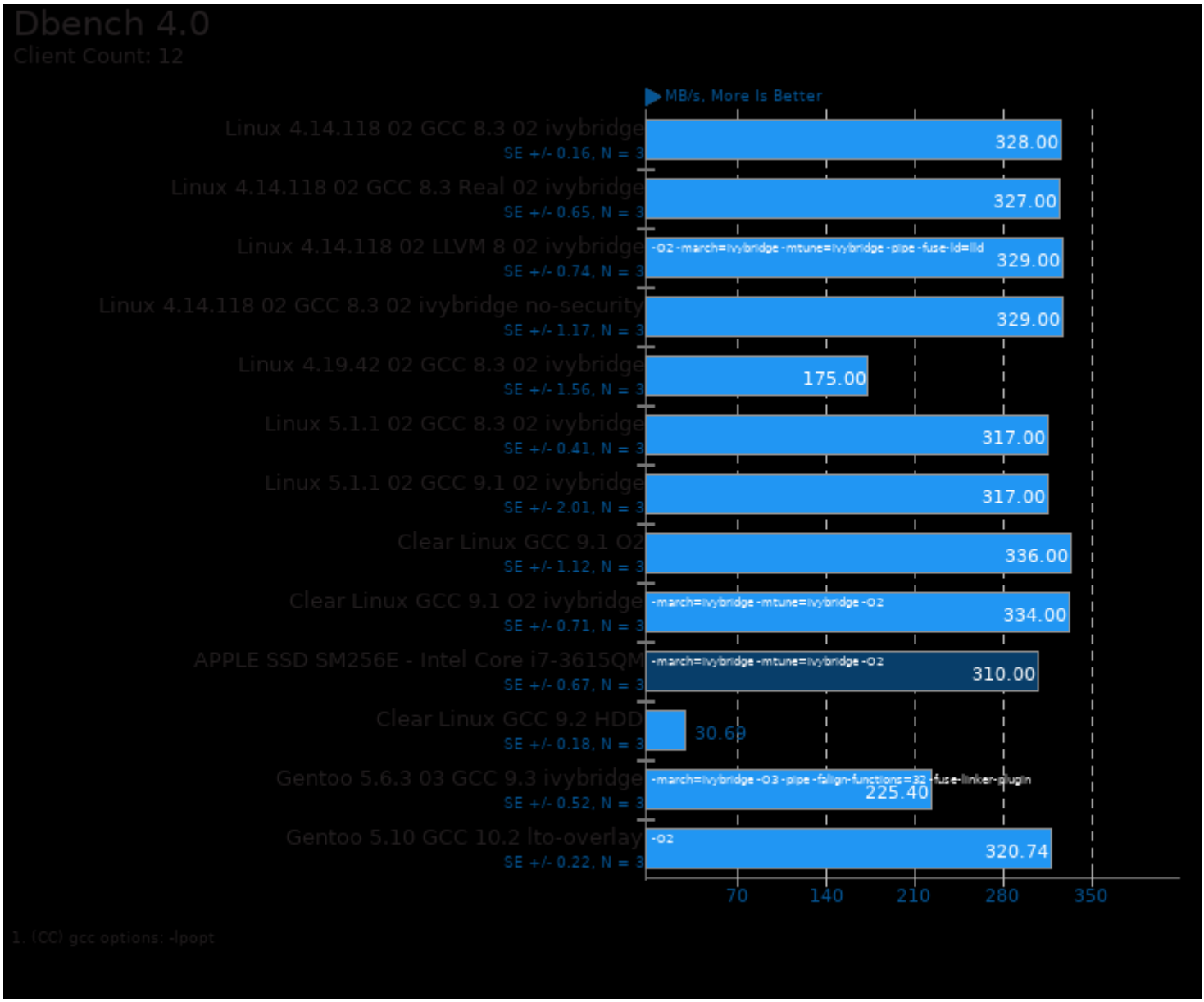
Standard Deviation	0.1%	0.3%	0.4%	0.6%	1.5%	0.2%	1.1%	0.6%	0.4%		0.4%	1%	0.4%		0.1%
FLAC Audio Encoding - WAV To FLAC (sec)	13.36	13.53	14.08	13.29	**13.06**	13.34	13.27	13.78	13.57	13.56	14.29	**19.215**	13.468	17.903	14.734
Normalized	97.75%	96.53%	92.76%	98.27%	100%	97.9%	98.42%	94.78%	96.24%	96.31%	91.39%	67.97%	96.97%	72.95%	88.64%
Standard Deviation	0.6%	1.1%	0.7%	0.6%	0.6%	0.5%	0.4%	0.4%	0.5%	0.7%	1%	2.8%	0.7%	0.3%	1%
FS-Mark - 1.F.1.S (Files/s)	79.23	77.87		78.23	55.67	77.73	77.97	76.73	76.33			**10.8**	58.2		**81.8**
Normalized	96.86%	95.2%		95.64%	68.06%	95.02%	95.32%	93.8%	93.31%			13.2%	71.15%		100%
Standard Deviation	0.3%	1.5%		1.5%	0.7%	1.2%	1.1%	0.3%	0.3%			0%	2.2%		0.8%
FS-Mark - 4.F.3.S.D.1.S (Files/s)	77.97	78.50		79.83	55.40	78.13	77.53	76.30	76.50			**10.9**	56.2		**82.2**
Normalized	94.85%	95.5%		97.12%	67.4%	95.05%	94.32%	92.82%	93.07%			13.26%	68.37%		100%
Standard Deviation	0.6%	0.3%		1.1%	0.6%	0.7%	1.2%	0.5%	0.3%			0.5%	1.2%		1.1%
Himeno Benchmark - P.P.S (MFLOPS)	1436	1434	1401	1399	1420	1427	1425	1450	1425	1558	1574	1392	1427	**2017**	**1359**
Normalized	71.19%	71.09%	69.45%	69.35%	70.39%	70.74%	70.64%	71.88%	70.64%	77.24%	78.03%	68.99%	70.72%	100%	67.36%
Standard Deviation	0.1%	0.1%	0.4%	3%	0.1%	0.4%	0.8%	0.1%	0.2%	0.3%	0%	0.9%	0.3%	2.1%	0.3%
Parboil - OpenMP Stencil (sec)	33.54	23.99	**21.64**		31.92	**33.70**	32.06	32.14	33.43				22.496297		
Normalized	64.52%	90.2%	100%		67.79%	64.21%	67.5%	67.33%	64.73%				96.19%		
Standard Deviation	0.3%	0.9%	0.7%		1%	0.5%	0.8%	1.4%	0.6%				0.8%		
Parboil - O.M.G (sec)	52.01	53.70			49.68	51.21	**54.40**	45.96	46.11				**43.326741**		
Normalized	83.3%	80.68%			87.21%	84.61%	79.64%	94.27%	93.96%				100%		
Standard Deviation	5.1%	4.4%			2.1%	5.5%	0.1%	4.3%	3.6%				3%		
PHPBench - P.B.S	134222	134010	**133247**	134262	134109	134186	134165	587293	**588968**	308825	307890	548201	430518	299618	391455
Normalized	22.79%	22.75%	22.62%	22.8%	22.77%	22.78%	22.78%	99.72%	100%	52.43%	52.28%	93.08%	73.1%	50.87%	66.46%
Standard Deviation	0.1%	0.1%	1.1%	0.3%	0.6%	0.2%	0.5%	0.7%	0.3%	1%	1%	0.4%	0.2%	0.1%	0.2%
PyBench - T.F.A.T.T (Millisecond	6963	6950	6946	7039	6968	6974	**7101**	1561	1560	2024	2034	**1494**	2005	2507	1948
Normalized	21.46%	21.5%	21.51%	21.22%	21.44%	21.42%	21.04%	95.71%	95.77%	73.81%	73.45%	100%	74.51%	59.59%	76.69%
Standard Deviation	0.5%	0.4%	0.4%	1%	0.1%	0.4%	0.6%	0.2%	0.4%	0.2%	0.5%	0.2%	0.1%	0.2%	0.5%

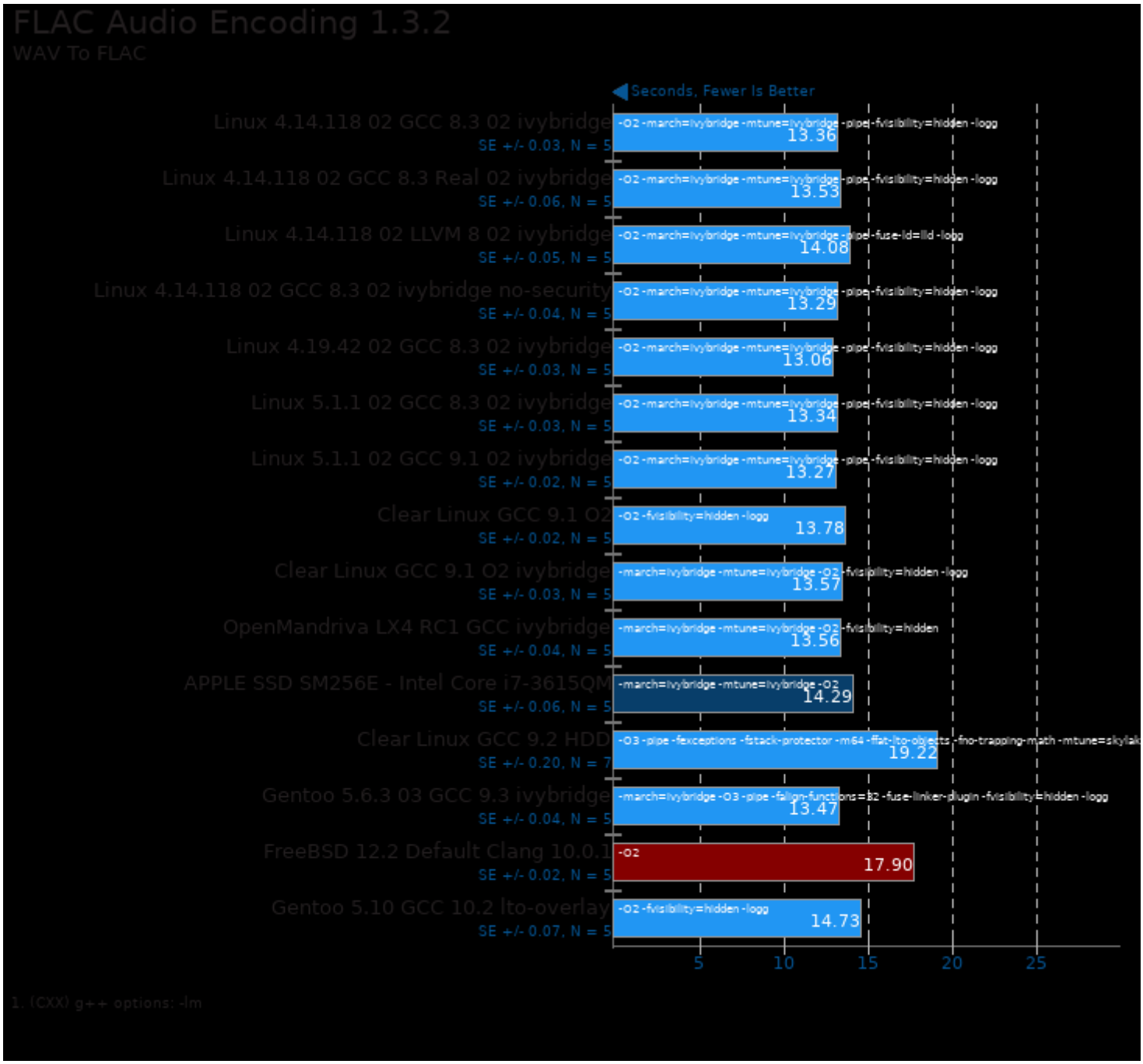
Gentoo MacBookProR 2012 Optim

Rodinia - OpenMP CFD Solver	75.66	74.45	**101.49**	73.45	74.80	**72.61**	75.43	84.97	85.42		84.26	88.445	78.048	76.008	73.362
Normalized	95.97%	97.53%	71.54%	98.86%	97.07%	100%	96.26%	85.45%	85%		86.17%	82.1%	93.03%	95.53%	98.97%
Standard Deviation	2%	0.2%	3.5%	0.1%	2.1%	0.5%	0.5%	0.6%	0.3%		2.9%	1.1%	0.7%	1.1%	0.3%
Timed HMMer Search - P.D.S (sec)	11.40	11.43	11.06	11.26	11.24	11.35	11.29	11.14	11.27	11.05	10.42	8.304	**7.942**	**12.585**	10.914
Normalized	69.67%	69.48%	71.81%	70.53%	70.66%	69.97%	70.35%	71.29%	70.47%	71.87%	76.22%	95.64%	100%	63.11%	72.77%
Standard Deviation	0.7%	0.5%	2.2%	0.7%	0%	1.2%	0.5%	0.1%	0.7%	0.4%	0.4%	9.9%	1.2%	0.7%	0.5%
XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	54.84	54.76	53.51	55.43	55.75	54.58	54.66	55.44	55.46	50.93	**49.23**	51.858	55.818	**63.107**	55.013
Normalized	89.77%	89.9%	92%	88.81%	88.3%	90.2%	90.07%	88.8%	88.77%	96.66%	100%	94.93%	88.2%	78.01%	89.49%
Standard Deviation	1.1%	0.3%	0.4%	1.1%	2.9%	1.4%	0.7%	0.6%	0.8%	3.5%	2.5%	4.5%	2.1%	4.5%	1%

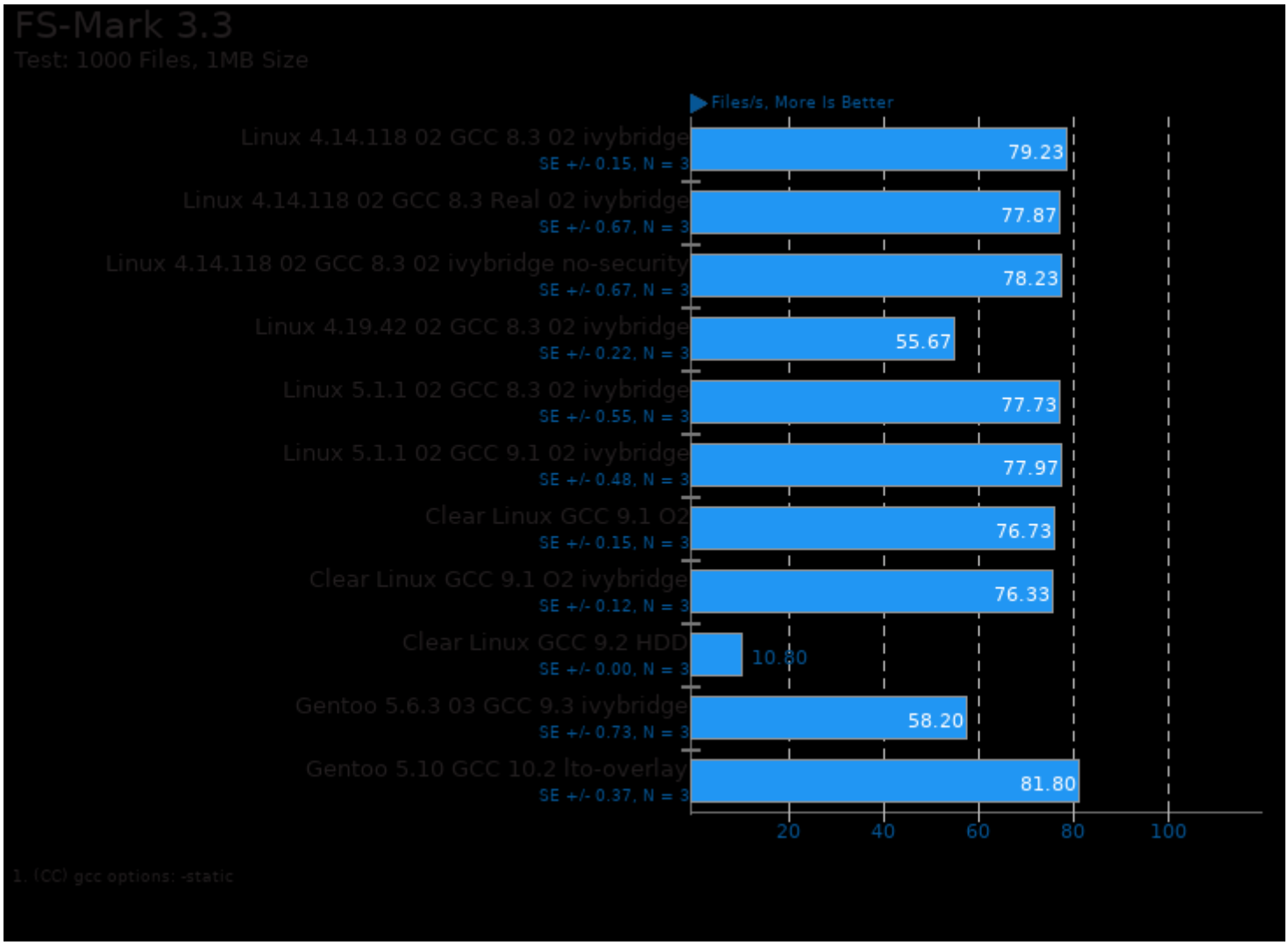

Compile Bench 0.6
Test: Compile
MB/s, More Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 4.32, N = 3
691.00
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 9.57, N = 3
691.00
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 1.34, N = 3
706.00
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 2.42, N = 3
720.00
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 8.78, N = 5
733.00
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 2.77, N = 3
702.00
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 8.20, N = 3
698.00
Clear Linux GCC 9.1 O2
SE +/- 9.00, N = 6
760.00
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 2.34, N = 3
775.00
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 4.19, N = 15
411.74
200
400
600
800
1000


Compile Bench 0.6
Test: Initial Create
MB/s, More Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 3.61, N = 3
198.00
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 2.34, N = 3
196.00
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 3.09, N = 3
201.00
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 4.17, N = 3
209.00
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 2.63, N = 3
204.00
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 6.91, N = 3
199.00
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 6.18, N = 3
201.00
Clear Linux GCC 9.1 O2
SE +/- 3.13, N = 3
288.00
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 1.09, N = 3
289.00
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 15.64, N = 3
223.27
60
120
180
240
300

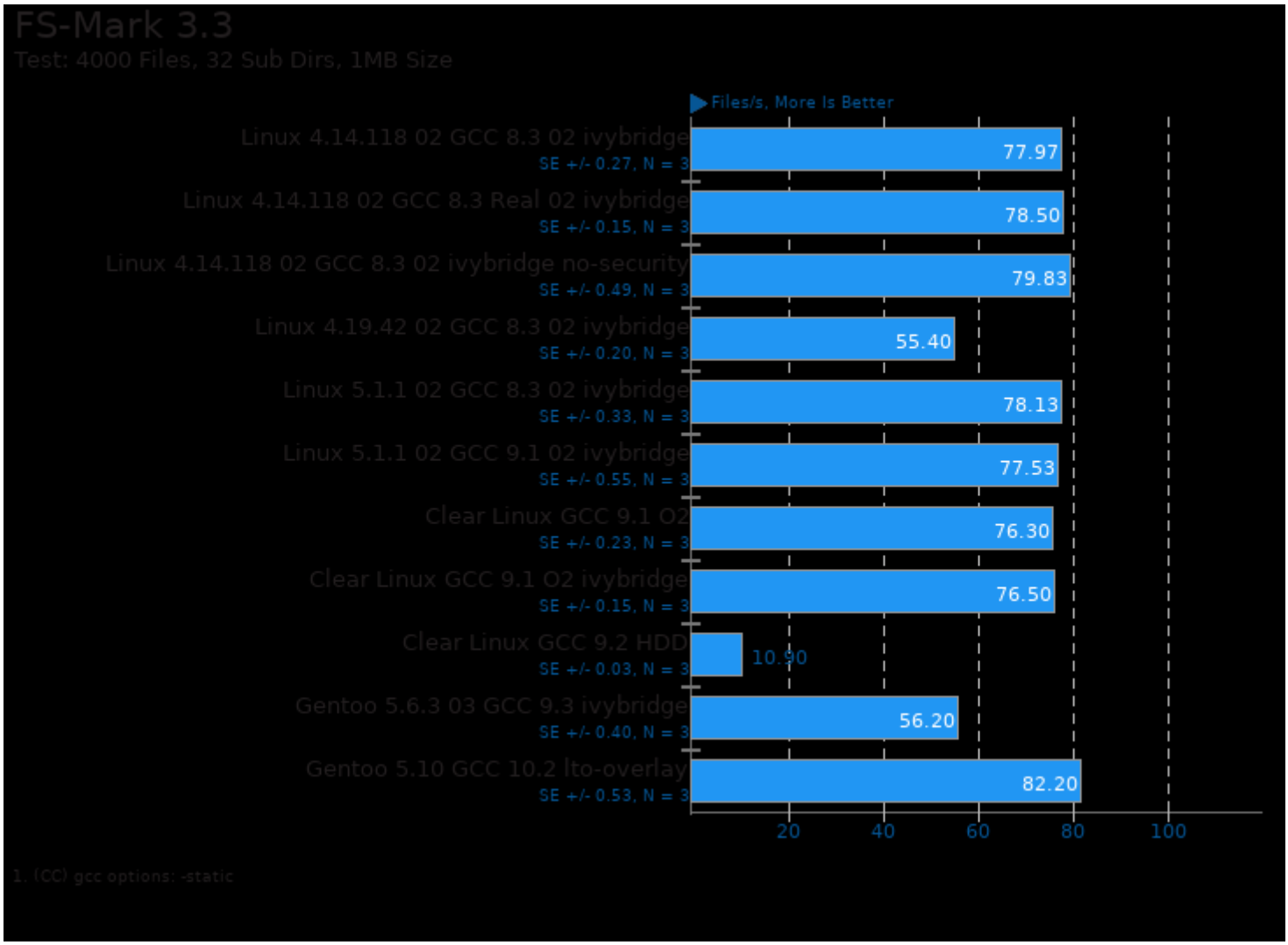

Dbench 4.0
Client Count: 12
MB/s, More Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 0.16, N = 3
328.00
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 0.65, N = 3
327.00
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 0.74, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe -fuse-ld=lld
329.00
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 1.17, N = 3
329.00
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 1.56, N = 3
175.00
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 0.41, N = 3
317.00
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 2.01, N = 3
317.00
Clear Linux GCC 9.1 O2
SE +/- 1.12, N = 3
336.00
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 0.71, N = 3
-march=ivybridge -mtune=ivybridge -O2
334.00
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 0.67, N = 3
-march=ivybridge -mtune=ivybridge -O2
310.00
Clear Linux GCC 9.2 HDD
SE +/- 0.18, N = 3
30.69
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 0.52, N = 3
-march=ivybridge -O3 -pipe -falign-functions=32 -fuse-linker-plugin
225.40
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 0.22, N = 3
-O2
320.74
70
140
210
280
350
1. (CC) gcc options: -lpopt

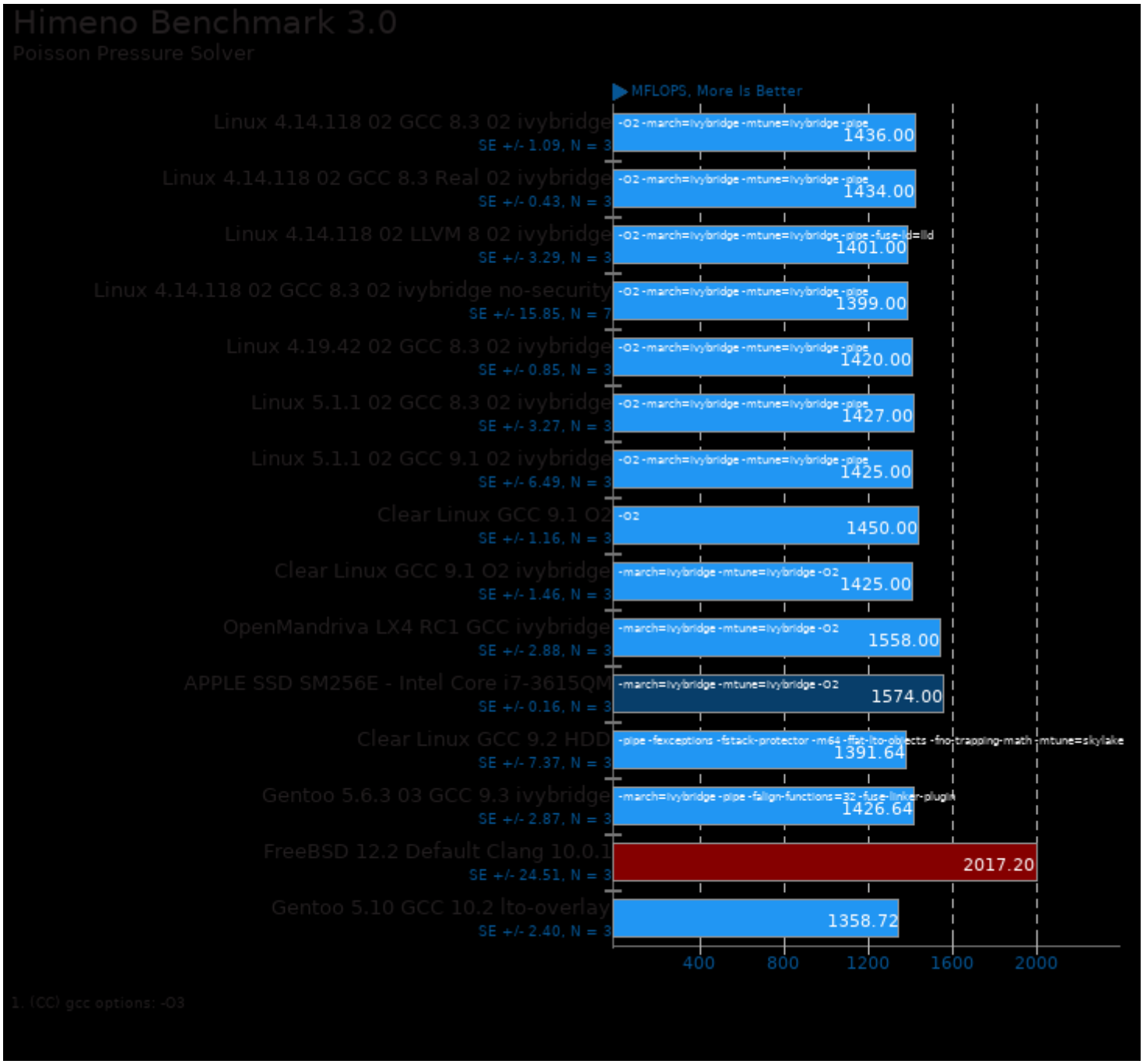

FLAC Audio Encoding 1.3.2
WAV To FLAC
Seconds, Fewer Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 0.03, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fvisibility=hidden -logg
13.36
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 0.06, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fvisibility=hidden -logg
13.53
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 0.05, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fuse-ld=lld -logg
14.08
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 0.04, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fvisibility=hidden -logg
13.29
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 0.03, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fvisibility=hidden -logg
13.06
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 0.03, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fvisibility=hidden -logg
13.34
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 0.02, N = 5
-O2 -march=ivybridge -mtune=ivybridge -pipe -fvisibility=hidden -logg
13.27
Clear Linux GCC 9.1 O2
SE +/- 0.02, N = 5
-O2 -fvisibility=hidden -logg
13.78
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 0.03, N = 5
-march=ivybridge -mtune=ivybridge -O2 -fvisibility=hidden -logg
13.57
OpenMandriva LX4 RC1 GCC ivybridge
SE +/- 0.04, N = 5
-march=ivybridge -mtune=ivybridge -O2 -fvisibility=hidden
13.56
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 0.06, N = 5
-march=ivybridge -mtune=ivybridge -O2
14.29
Clear Linux GCC 9.2 HDD
SE +/- 0.20, N = 7
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-trapping-math -mtune=skylak
19.22
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 0.04, N = 5
-march=ivybridge -O3 -pipe -falign-functions=32 -fuse-linker-plugin -fvisibility=hidden -logg
13.47
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 0.02, N = 5
-O2
17.90
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 0.07, N = 5
-O2 -fvisibility=hidden -logg
14.73
5
10
15
20
25
1. (CXX) g++ options: -lm

Gentoo MacBookProR 2012 Optim

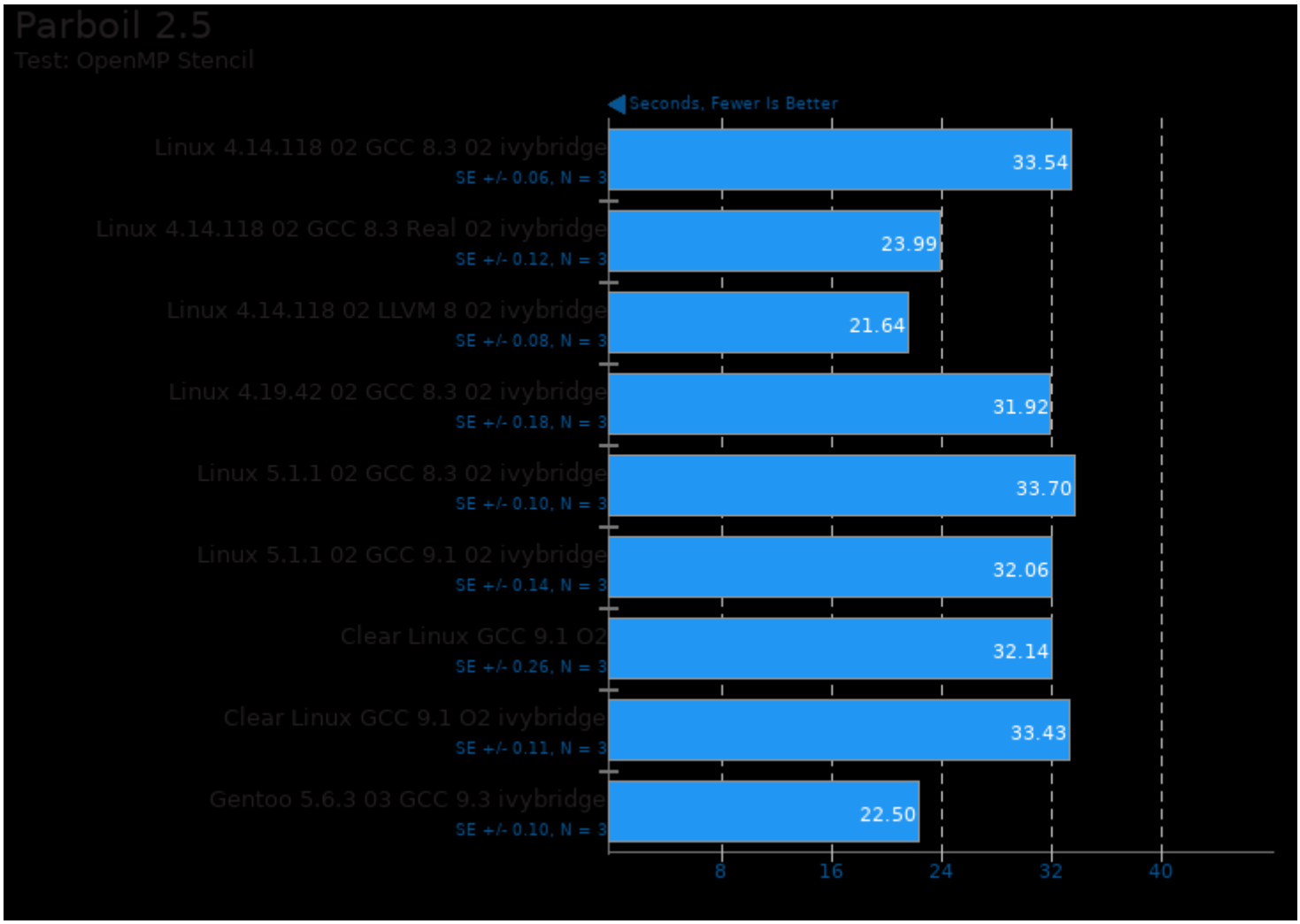


Gentoo MacBookProR 2012 Optim

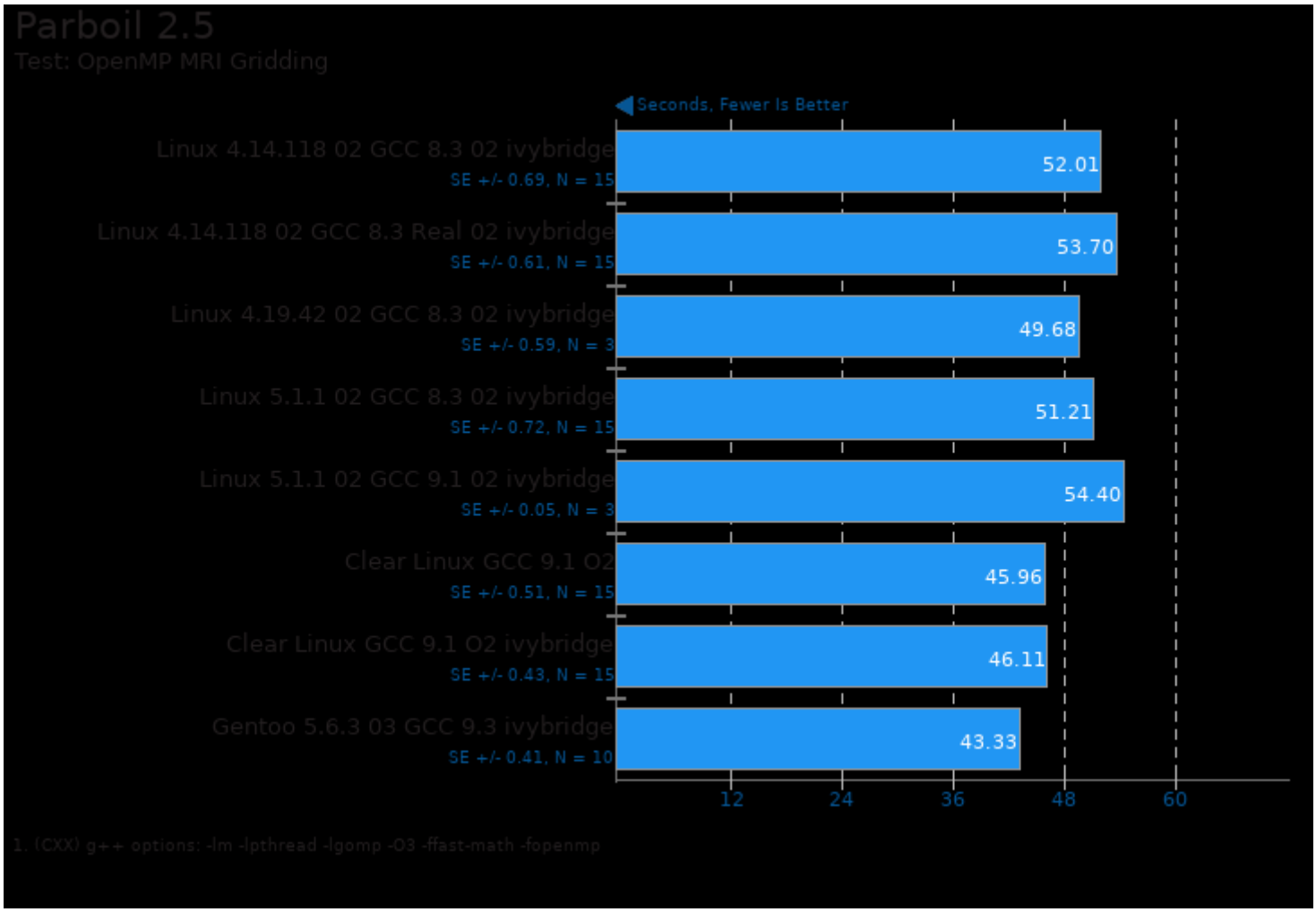


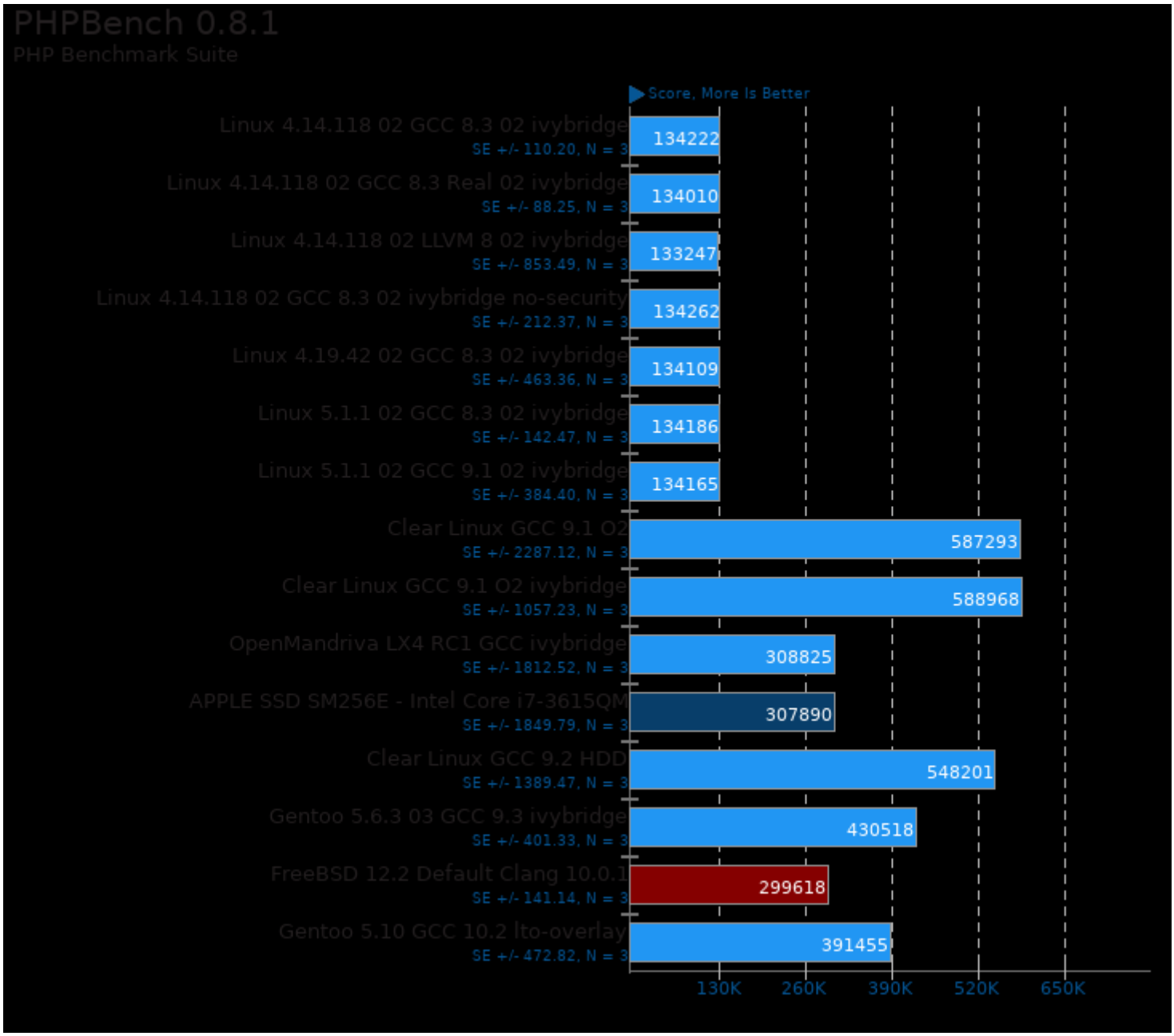

Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 1.09, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
1436.00
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 0.43, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
1434.00
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 3.29, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe -fuse-ld=lld
1401.00
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 15.85, N = 7
-O2 -march=ivybridge -mtune=ivybridge -pipe
1399.00
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 0.85, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
1420.00
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 3.27, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
1427.00
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 6.49, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
1425.00
Clear Linux GCC 9.1 O2
SE +/- 1.16, N = 3
-O2
1450.00
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 1.46, N = 3
-march=ivybridge -mtune=ivybridge -O2
1425.00
OpenMandriva LX4 RC1 GCC ivybridge
SE +/- 2.88, N = 3
-march=ivybridge -mtune=ivybridge -O2
1558.00
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 0.16, N = 3
-march=ivybridge -mtune=ivybridge -O2
1574.00
Clear Linux GCC 9.2 HDD
SE +/- 7.37, N = 3
-pipe -fexceptions -fstack-protector -m64 -flto-objects -fno-trapping-math -mtune=skylake
1391.64
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 2.87, N = 3
-march=ivybridge -pipe -falign-functions=32 -fuse-linker-plugin
1426.64
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 24.51, N = 3
2017.20
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 2.40, N = 3
1358.72
400
800
1200
1600
2000
1. (CC) gcc options: -O3

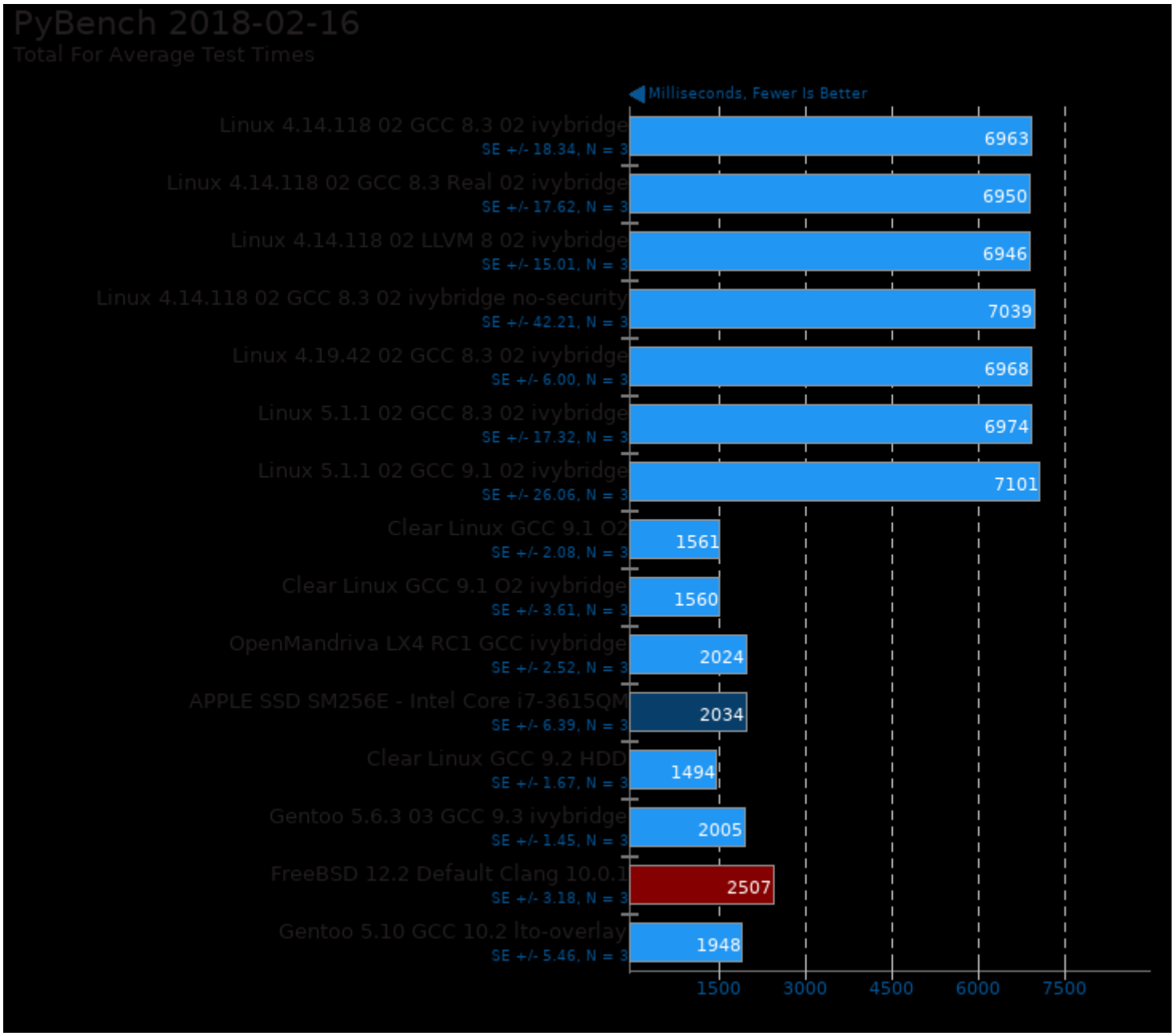
Gentoo MacBookProR 2012 Optim

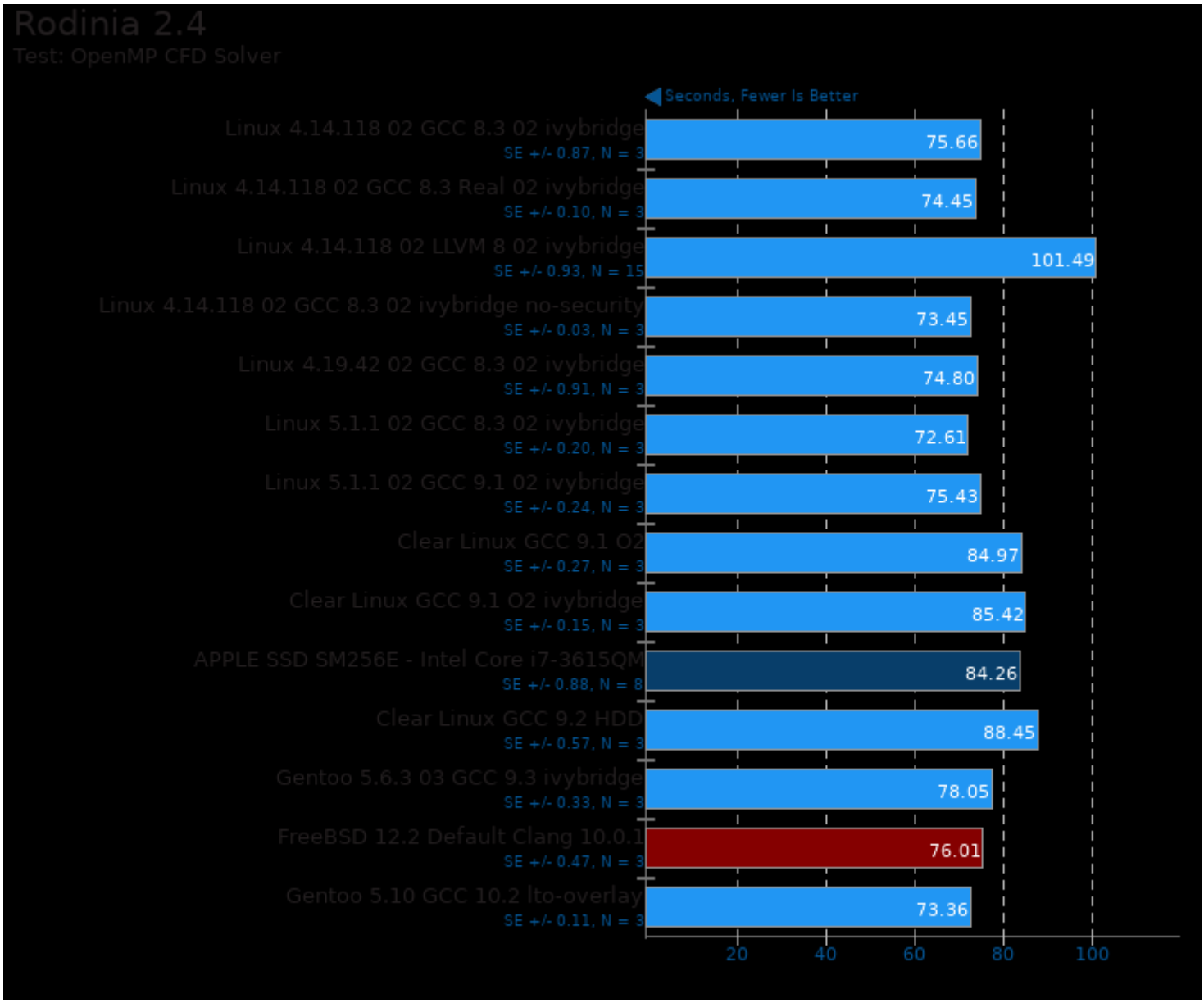


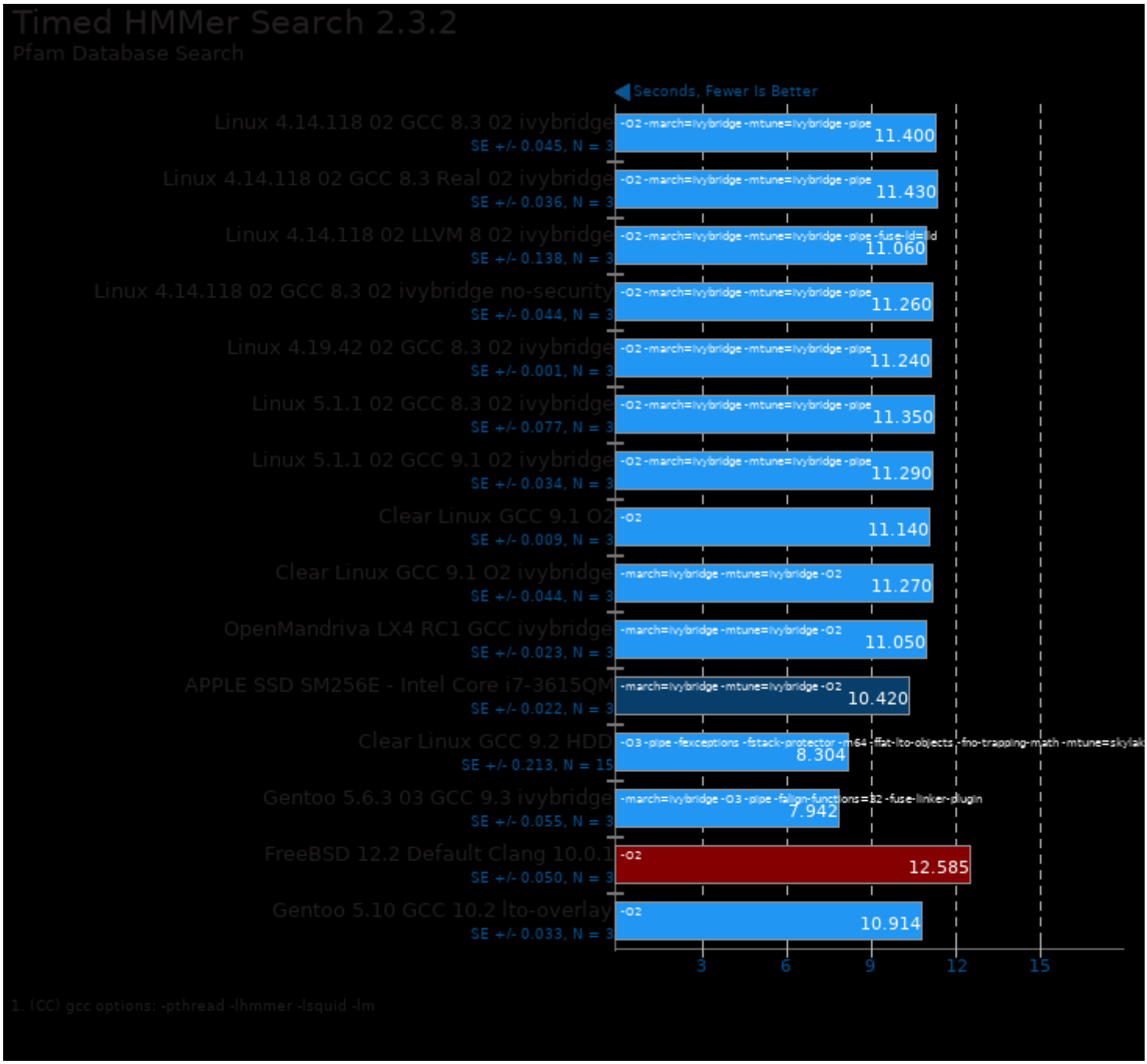
Gentoo MacBookProR 2012 Optim

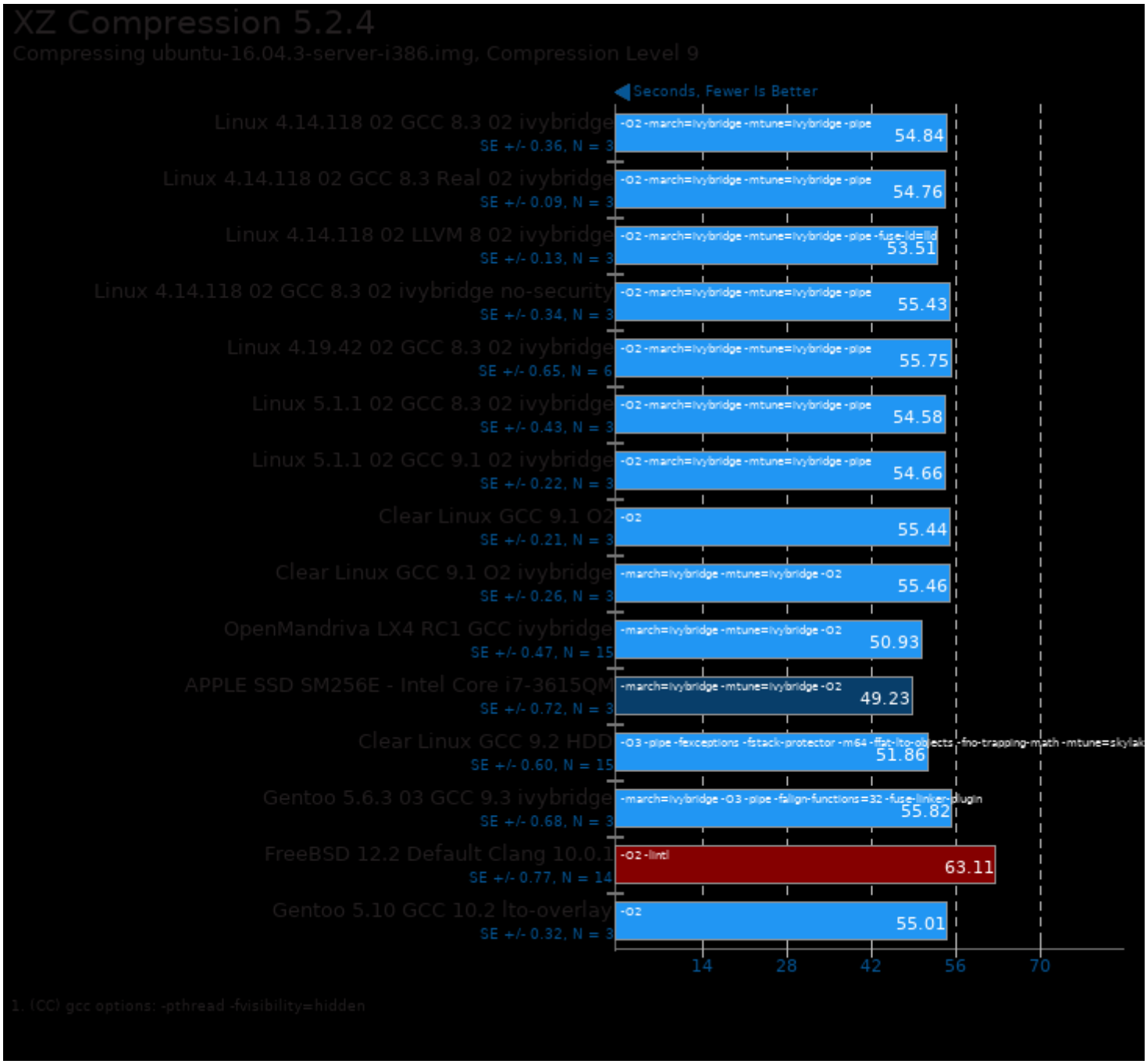



PHPBench 0.8.1
PHP Benchmark Suite
Score, More Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 110.20, N = 3
134222
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 88.25, N = 3
134010
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 853.49, N = 3
133247
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 212.37, N = 3
134262
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 463.36, N = 3
134109
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 142.47, N = 3
134186
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 384.40, N = 3
134165
Clear Linux GCC 9.1 O2
SE +/- 2287.12, N = 3
587293
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 1057.23, N = 3
588968
OpenMandriva LX4 RC1 GCC ivybridge
SE +/- 1812.52, N = 3
308825
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 1849.79, N = 3
307890
Clear Linux GCC 9.2 HDD
SE +/- 1389.47, N = 3
548201
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 401.33, N = 3
430518
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 141.14, N = 3
299618
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 472.82, N = 3
391455
130K
260K
390K
520K
650K

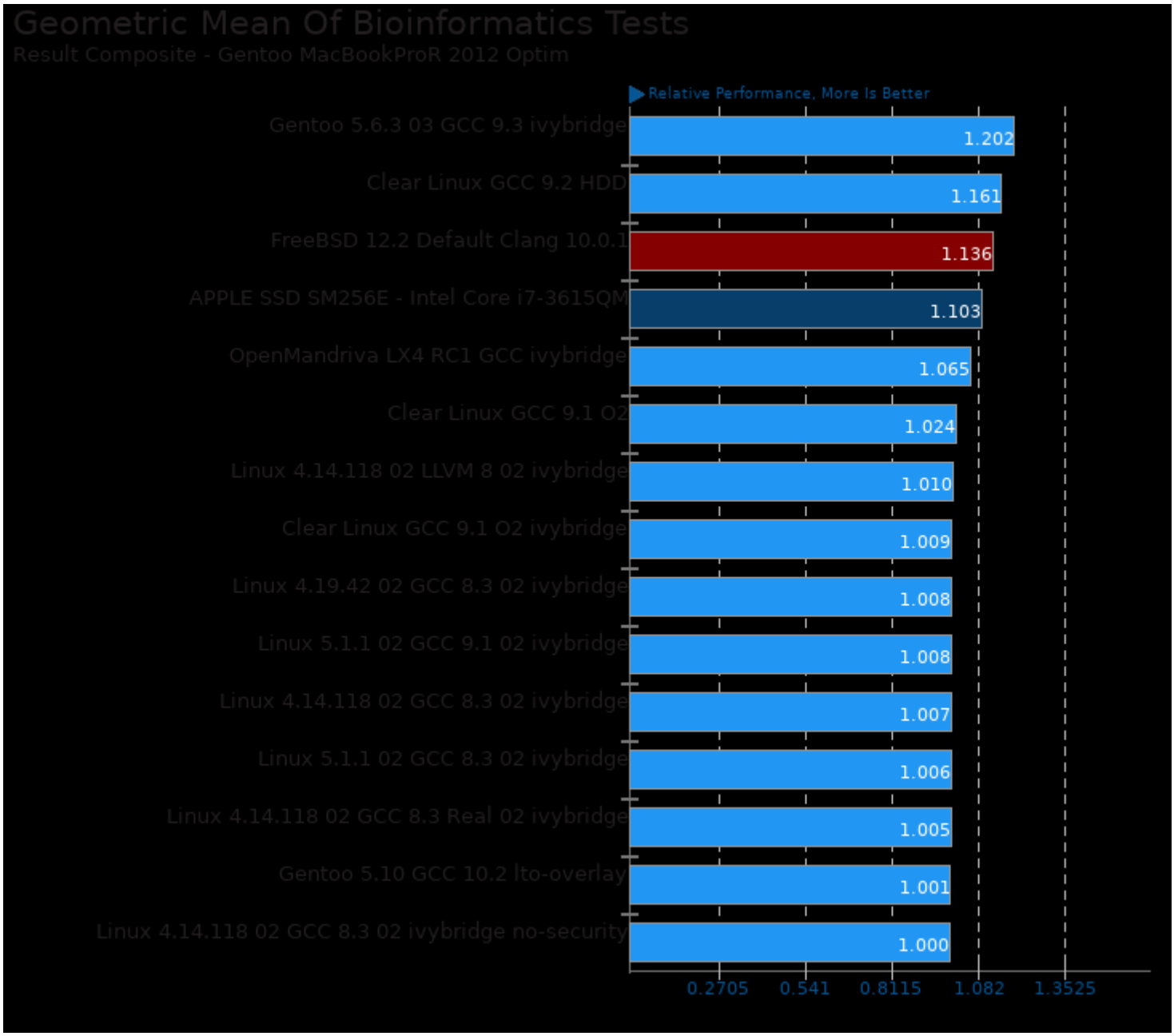

PyBench 2018-02-16
Total For Average Test Times
Milliseconds, Fewer Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 18.34, N = 3
6963
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 17.62, N = 3
6950
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 15.01, N = 3
6946
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 42.21, N = 3
7039
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 6.00, N = 3
6968
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 17.32, N = 3
6974
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 26.06, N = 3
7101
Clear Linux GCC 9.1 O2
SE +/- 2.08, N = 3
1561
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 3.61, N = 3
1560
OpenMandriva LX4 RC1 GCC ivybridge
SE +/- 2.52, N = 3
2024
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 6.39, N = 3
2034
Clear Linux GCC 9.2 HDD
SE +/- 1.67, N = 3
1494
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 1.45, N = 3
2005
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 3.18, N = 3
2507
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 5.46, N = 3
1948
1500
3000
4500
6000
7500


Rodinia 2.4
Test: OpenMP CFD Solver
Seconds, Fewer Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 0.87, N = 3
75.66
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 0.10, N = 3
74.45
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 0.93, N = 15
101.49
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 0.03, N = 3
73.45
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 0.91, N = 3
74.80
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 0.20, N = 3
72.61
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 0.24, N = 3
75.43
Clear Linux GCC 9.1 O2
SE +/- 0.27, N = 3
84.97
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 0.15, N = 3
85.42
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 0.88, N = 8
84.26
Clear Linux GCC 9.2 HDD
SE +/- 0.57, N = 3
88.45
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 0.33, N = 3
78.05
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 0.47, N = 3
76.01
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 0.11, N = 3
73.36
20
40
60
80
100


Timed HMMer Search 2.3.2
Pfam Database Search
Seconds, Fewer Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 0.045, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
11.400
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 0.036, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
11.430
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 0.138, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe -fuse-ld=lld
11.060
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 0.044, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
11.260
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 0.001, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
11.240
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 0.077, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
11.350
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 0.034, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
11.290
Clear Linux GCC 9.1 O2
SE +/- 0.009, N = 3
-O2
11.140
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 0.044, N = 3
-march=ivybridge -mtune=ivybridge -O2
11.270
OpenMandriva LX4 RC1 GCC ivybridge
SE +/- 0.023, N = 3
-march=ivybridge -mtune=ivybridge -O2
11.050
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 0.022, N = 3
-march=ivybridge -mtune=ivybridge -O2
10.420
Clear Linux GCC 9.2 HDD
SE +/- 0.213, N = 15
-O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylak
8.304
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 0.055, N = 3
-march=ivybridge -O3 -pipe -falign-functions=32 -fuse-linker-plugin
7.942
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 0.050, N = 3
-O2
12.585
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 0.033, N = 3
-O2
10.914
3
6
9
12
15
1. (CC) gcc options: -pthread -lhmmer -lsquid -lm

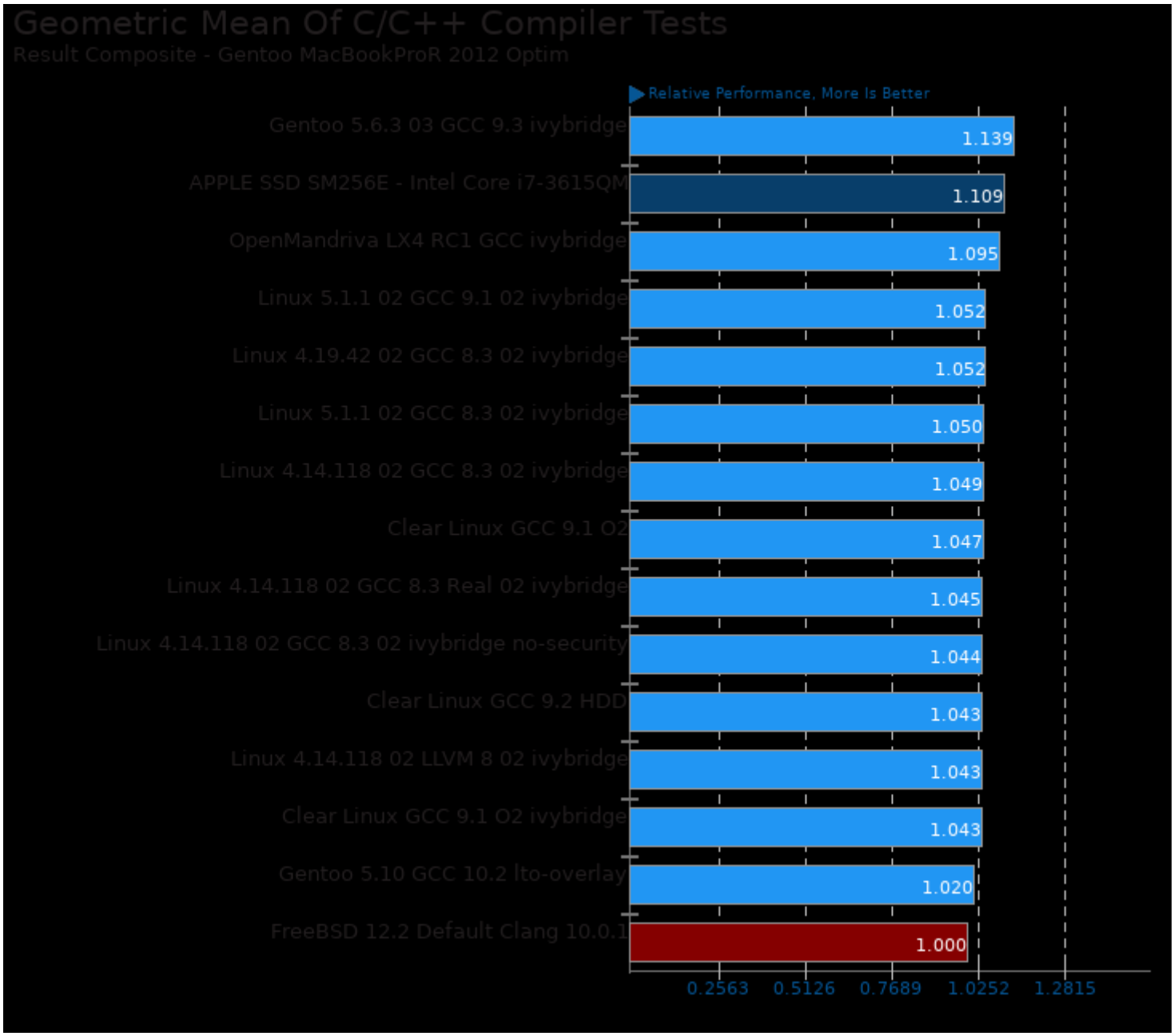

XZ Compression 5.2.4
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9
Seconds, Fewer Is Better
Linux 4.14.118 02 GCC 8.3 02 ivybridge
SE +/- 0.36, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
54.84
Linux 4.14.118 02 GCC 8.3 Real 02 ivybridge
SE +/- 0.09, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
54.76
Linux 4.14.118 02 LLVM 8 02 ivybridge
SE +/- 0.13, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe -fuse-ld=lld
53.51
Linux 4.14.118 02 GCC 8.3 02 ivybridge no-security
SE +/- 0.34, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
55.43
Linux 4.19.42 02 GCC 8.3 02 ivybridge
SE +/- 0.65, N = 6
-O2 -march=ivybridge -mtune=ivybridge -pipe
55.75
Linux 5.1.1 02 GCC 8.3 02 ivybridge
SE +/- 0.43, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
54.58
Linux 5.1.1 02 GCC 9.1 02 ivybridge
SE +/- 0.22, N = 3
-O2 -march=ivybridge -mtune=ivybridge -pipe
54.66
Clear Linux GCC 9.1 O2
SE +/- 0.21, N = 3
-O2
55.44
Clear Linux GCC 9.1 O2 ivybridge
SE +/- 0.26, N = 3
-march=ivybridge -mtune=ivybridge -O2
55.46
OpenMandriva LX4 RC1 GCC ivybridge
SE +/- 0.47, N = 15
-march=ivybridge -mtune=ivybridge -O2
50.93
APPLE SSD SM256E - Intel Core i7-3615QM
SE +/- 0.72, N = 3
-march=ivybridge -mtune=ivybridge -O2
49.23
Clear Linux GCC 9.2 HDD
SE +/- 0.60, N = 15
-O3 -pipe -fexceptions -fstack-protector -m64 -flto=jobserver -fno-trapping-math -mtune=skylak
51.86
Gentoo 5.6.3 03 GCC 9.3 ivybridge
SE +/- 0.68, N = 3
-march=ivybridge -O3 -pipe -falign-functions=32 -fuse-linker-plugin
55.82
FreeBSD 12.2 Default Clang 10.0.1
SE +/- 0.77, N = 14
-O2 -lintl
63.11
Gentoo 5.10 GCC 10.2 lto-overlay
SE +/- 0.32, N = 3
-O2
55.01
14
28
42
56
70
1. (CC) gcc options: -pthread -fvisibility=hidden

These geometric means are based upon test groupings / test suites for this result file.



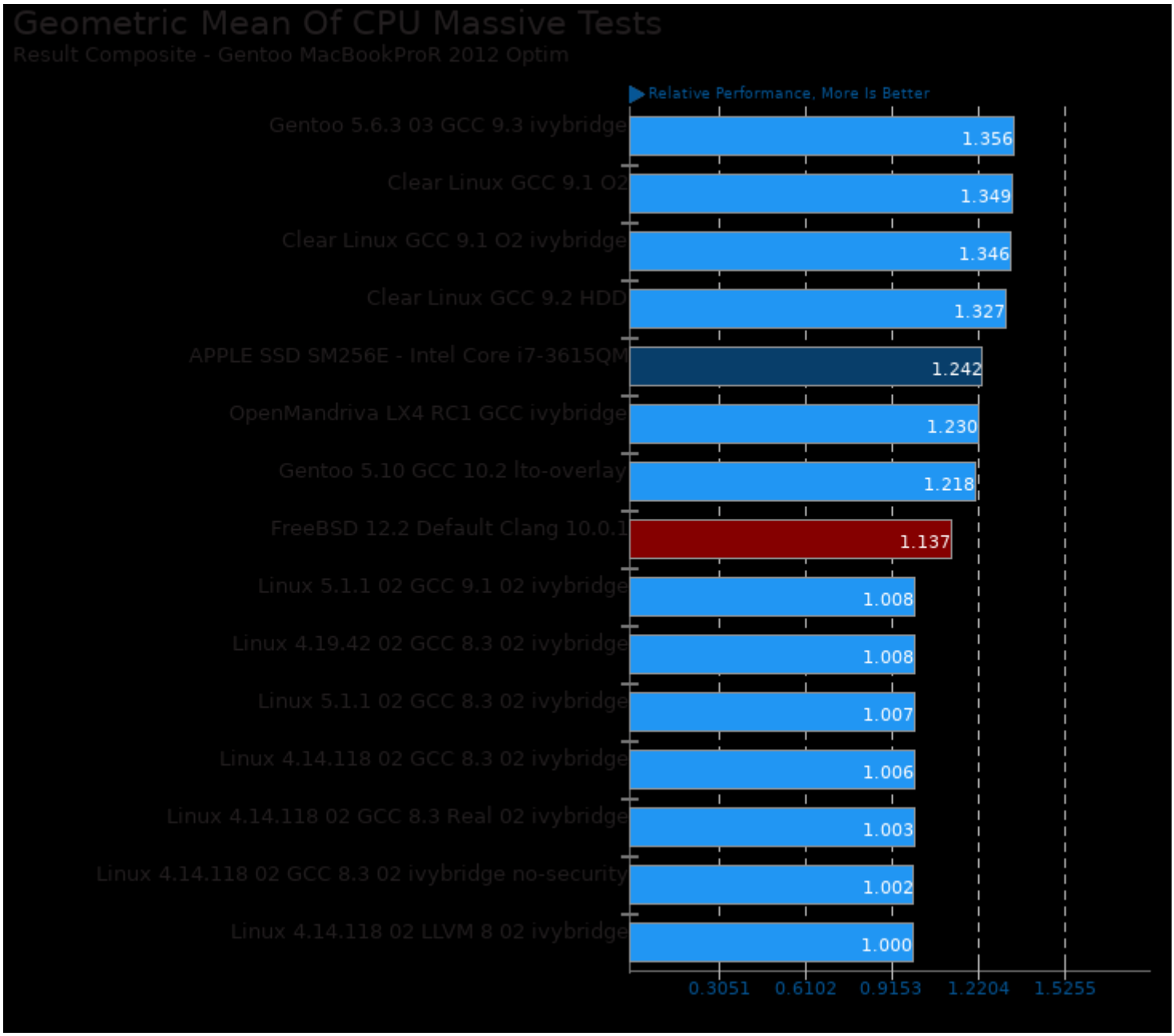
Geometric mean based upon tests: pts/himeno and pts/hmmer

Gentoo MacBookProR 2012 Optim



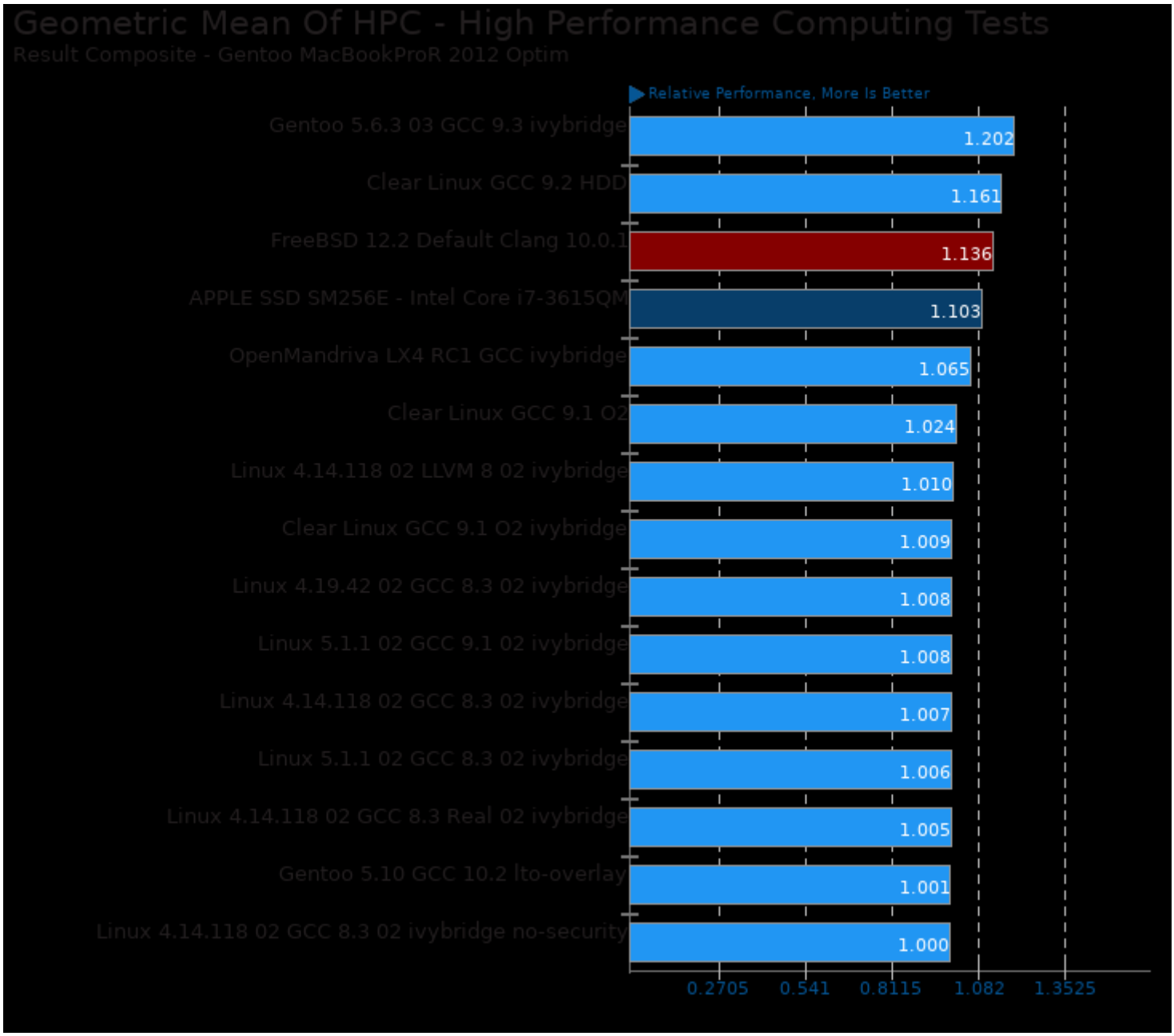
Geometric mean based upon tests: pts/himeno, pts/hmmer, pts/encode-flac and pts/compress-xz

Gentoo MacBookProR 2012 Optim



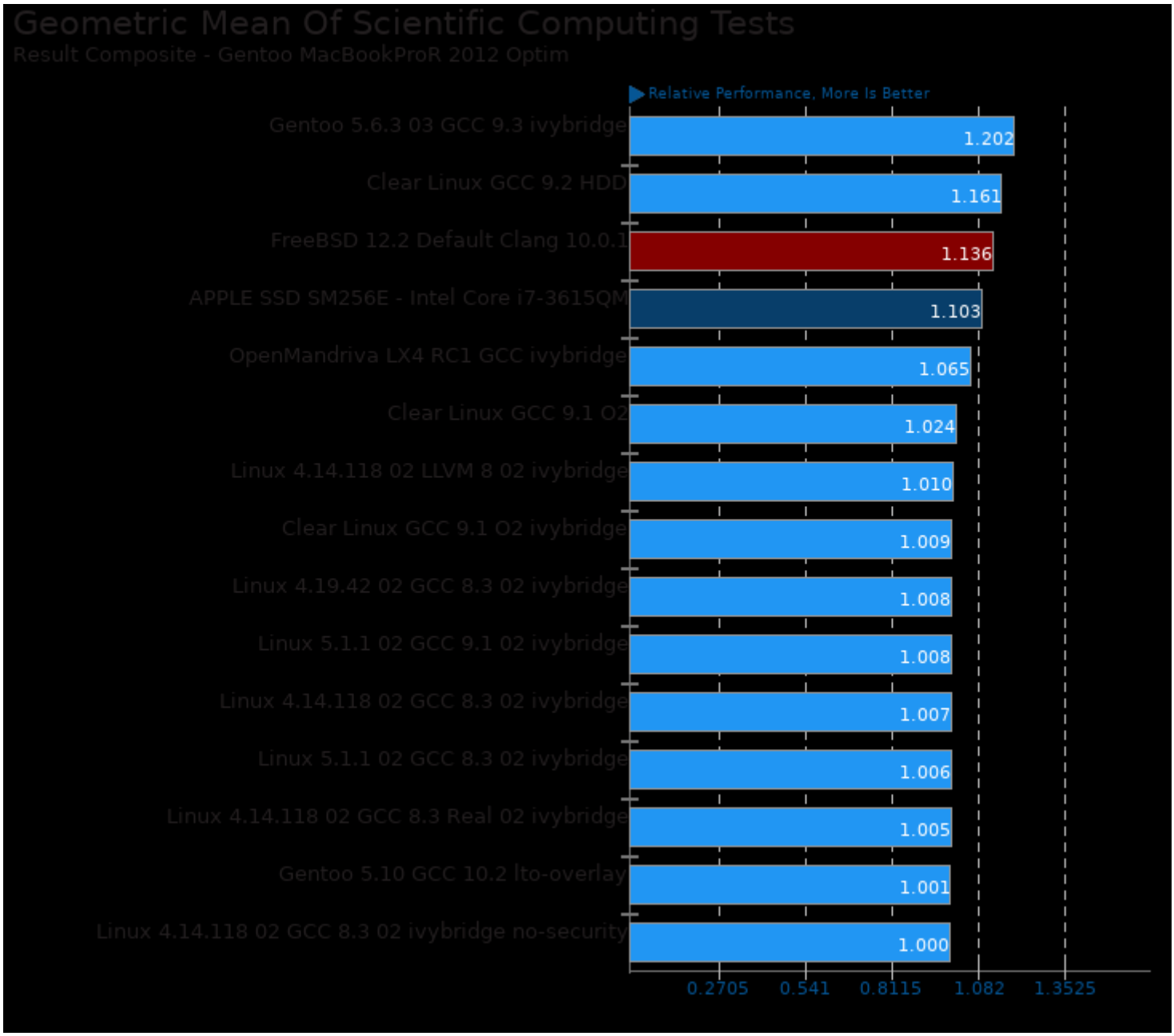
Geometric mean based upon tests: pts/compilebench, pts/compress-xz, pts/encode-flac, pts/himeno, pts/hmmer, pts/parboil, pts/phpbench and pts/rodinia

Gentoo MacBookProR 2012 Optim

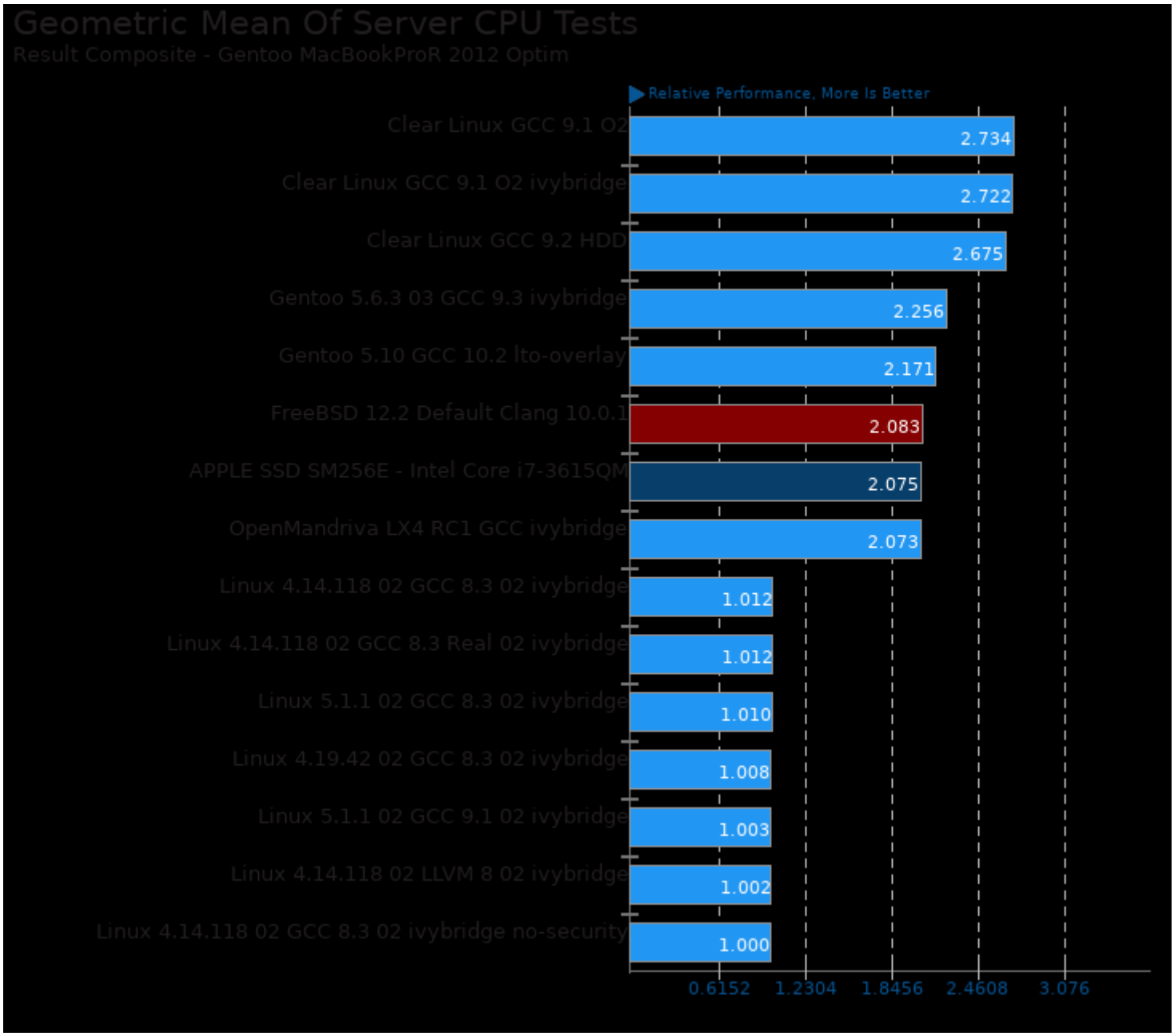


Geometric mean based upon tests: pts/rodinia, pts/parboil, pts/himeno and pts/hmmer

Gentoo MacBookProR 2012 Optim

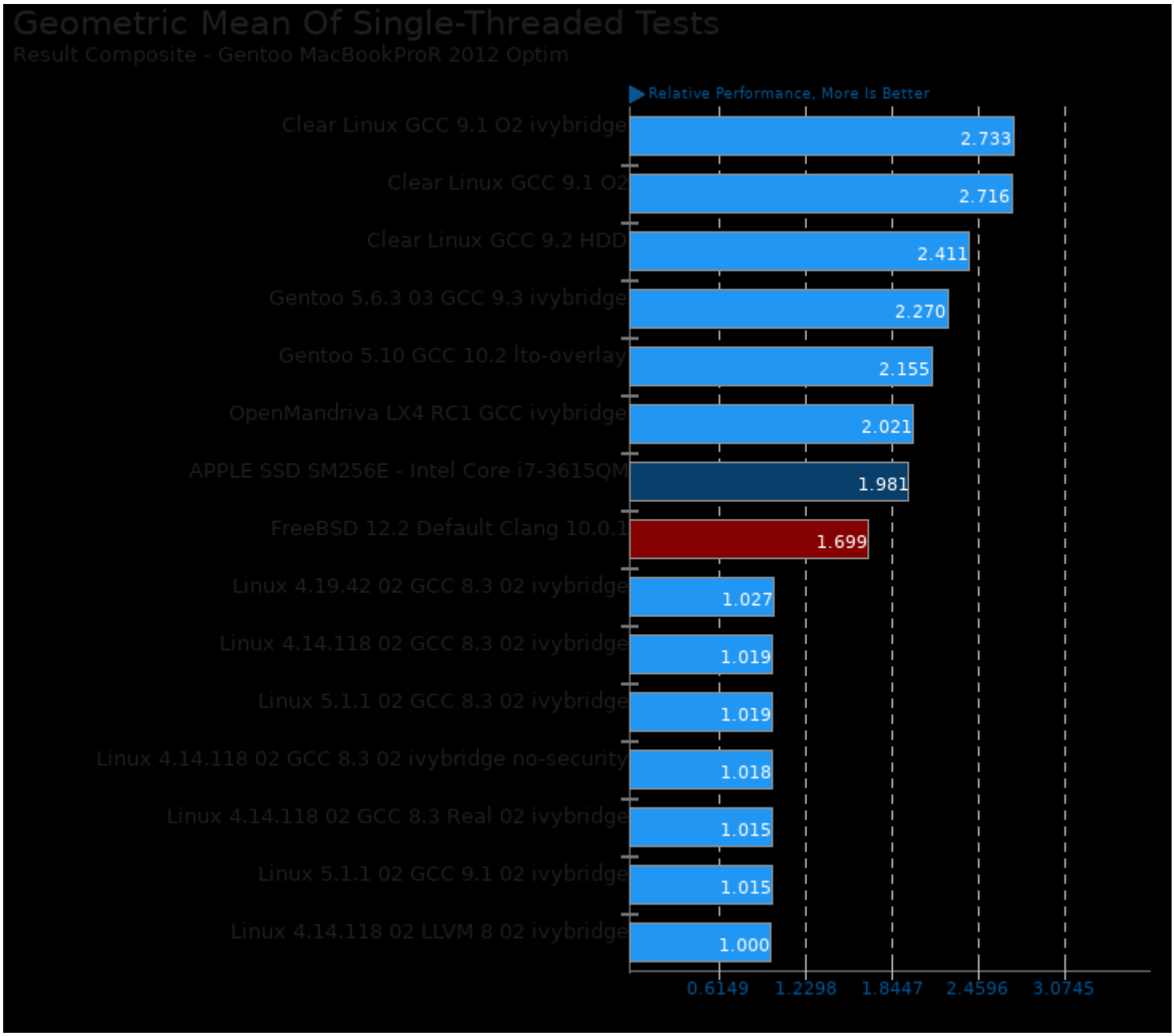


Geometric mean based upon tests: pts/himeno and pts/hmmer



Geometric mean based upon tests: pts/rodinia, pts/himeno, pts/pybench and pts/phpbench

Gentoo MacBookProR 2012 Optim



Geometric mean based upon tests: pts/encode-flac, pts/pybench and pts/phpbench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 02:58.