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5800X Okt

AMD Ryzen 7 5800X 8-Core testing with a ASRock X570 Pro4 (P4.20 BIOS) and Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 8GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 81% of the tests.

Based on the geometric mean of all complete results, the fastest (1) was 1.015x the speed of the slowest (2).

The results with the greatest spread from best to worst included:

Redis Memtier / Redis Benchmark (Test: GET) at 1.768x
Redis Memtier / Redis Benchmark (Test: MIX) at 1.475x
PyHPC Benchmarks (Device: CPU - Backend: JAX - Project Size: 1048576 - Benchmark: Equation of State) at 1.111x
PyHPC Benchmarks (Device: CPU - Backend: JAX - Project Size: 65536 - Benchmark: Isoneutral Mixing) at 1.1x
PyHPC Benchmarks (Device: CPU - Backend: Theano - Project Size: 262144 - Benchmark: Equation of State) at 1.063x
PyHPC Benchmarks (Device: CPU - Backend: PyTorch - Project Size: 1048576 - Benchmark: Equation of State) at 1.053x
PyHPC Benchmarks (Device: CPU - Backend: PyTorch - Project Size: 4194304 - Benchmark: Equation of State) at 1.041x
RAR Compression (Linux Source Tree Archiving To RAR) at 1.036x

Redis Memtier / Redis Benchmark (Test: SET) at 1.036x
PyHPC Benchmarks (Device: CPU - Backend: Bohrium - Project Size: 262144 - Benchmark: Equation of State) at 1.032x.

Test Systems:

1

2

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 8GB (1560/2100MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: MX279, Network: Intel I211

OS: Ubuntu 20.10, Kernel: 5.12.0-rc5-nopsf (x86_64) 20210403, Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6 (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201016
Python Notes: Python 3.8.6
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	1	2
OpenSSL (sign/s)	**2626**	**2597**
Normalized	100%	98.9%
Standard Deviation		0.7%
OpenSSL (verify/s)	**170317**	**167814**
Normalized	100%	98.53%
Standard Deviation		0.7%
GIMP - resize (sec)	**5.616**	**5.628**
Normalized	100%	99.79%
Standard Deviation		0.9%
GIMP - rotate (sec)	**8.563**	**8.611**
Normalized	100%	99.44%
Standard Deviation		0.7%
GIMP - auto-levels (sec)	**8.797**	**8.939**

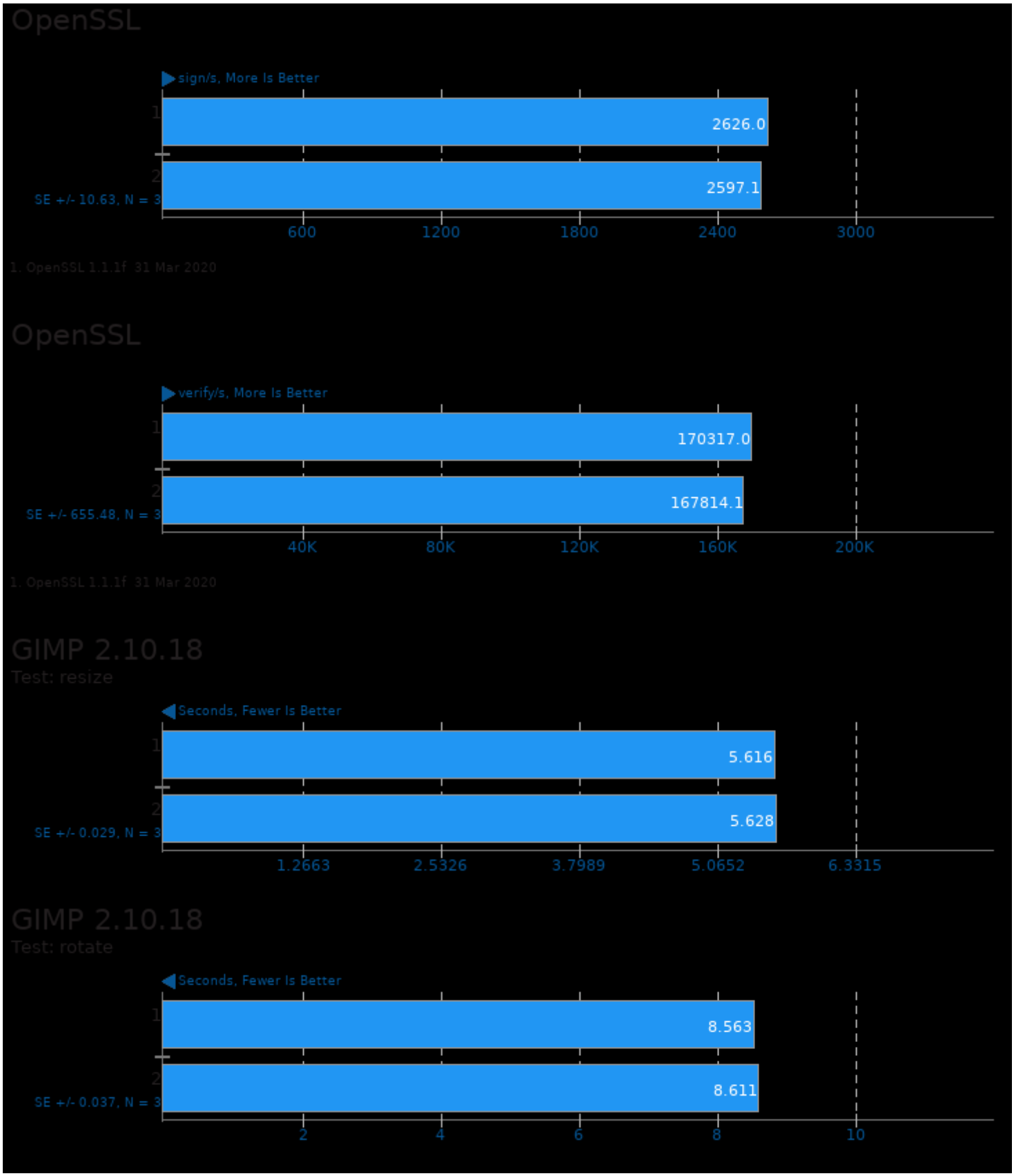
Normalized	100%	98.41%
Standard Deviation		0.3%
GIMP - unsharp-mask (sec)	**10.346**	**10.519**
Normalized	100%	98.36%
Standard Deviation		0%
Redis Memtier / Redis Benchmark - L.a.L.l (Reqs/sec)	**1840286**	**1816520**
Normalized	100%	98.71%
Standard Deviation		2.3%
Redis Memtier / Redis Benchmark - L.a.L.l (Reqs/sec)	**1864997**	**1861732**
Normalized	100%	99.82%
Standard Deviation		0.9%
Redis Memtier / Redis Benchmark - GET	**1742274**	**985350**
Normalized	100%	56.56%
Standard Deviation		1.7%
Redis Memtier / Redis Benchmark - MIX	**1498868**	**1016169**
Normalized	100%	67.8%
Standard Deviation		1.3%
Redis Memtier / Redis Benchmark - SET	**1176834**	**1135528**
Normalized	100%	96.49%
Standard Deviation		2.5%
Nginx - Long Connection - 100 (Reqs/sec)	**194334**	**189585**
Normalized	100%	97.56%
Standard Deviation		1%
Nginx - Long Connection - 500 (Reqs/sec)	**196861**	**191516**
Normalized	100%	97.29%
Standard Deviation		0.4%
Nginx - Long Connection - 1000 (Reqs/sec)	**158027**	**155314**
Normalized	100%	98.28%
Standard Deviation		0.2%
Nginx - Short Connection - 100 (Reqs/sec)	**121224**	**118499**
Normalized	100%	97.75%
Standard Deviation		0.6%
Nginx - Short Connection - 500 (Reqs/sec)	**117629**	**115356**
Normalized	100%	98.07%
Standard Deviation		0.5%
Nginx - Short Connection - 1000 (Reqs/sec)	**102793**	**101862**
Normalized	100%	99.09%
Standard Deviation		0.4%
RAR Compression - L.S.T.A.T.R (sec)	**37.399**	**38.764**
Normalized	100%	96.48%
Standard Deviation		0.6%
PyHPC Benchmarks - CPU - JAX - 16384 - Isoneutral Mixing (sec)	0.002	0.002
Standard Deviation		0%
PyHPC Benchmarks - CPU - JAX - 65536 - Isoneutral Mixing (sec)	**0.011**	**0.01**
Normalized	90.91%	100%
Standard Deviation		0%
PyHPC Benchmarks - CPU - JAX - 262144 - Equation of State (sec)	0.001	0.001
Standard Deviation		0%
PyHPC Benchmarks - CPU - JAX - 262144 - Isoneutral Mixing (sec)	0.028	0.028
Standard Deviation		0%

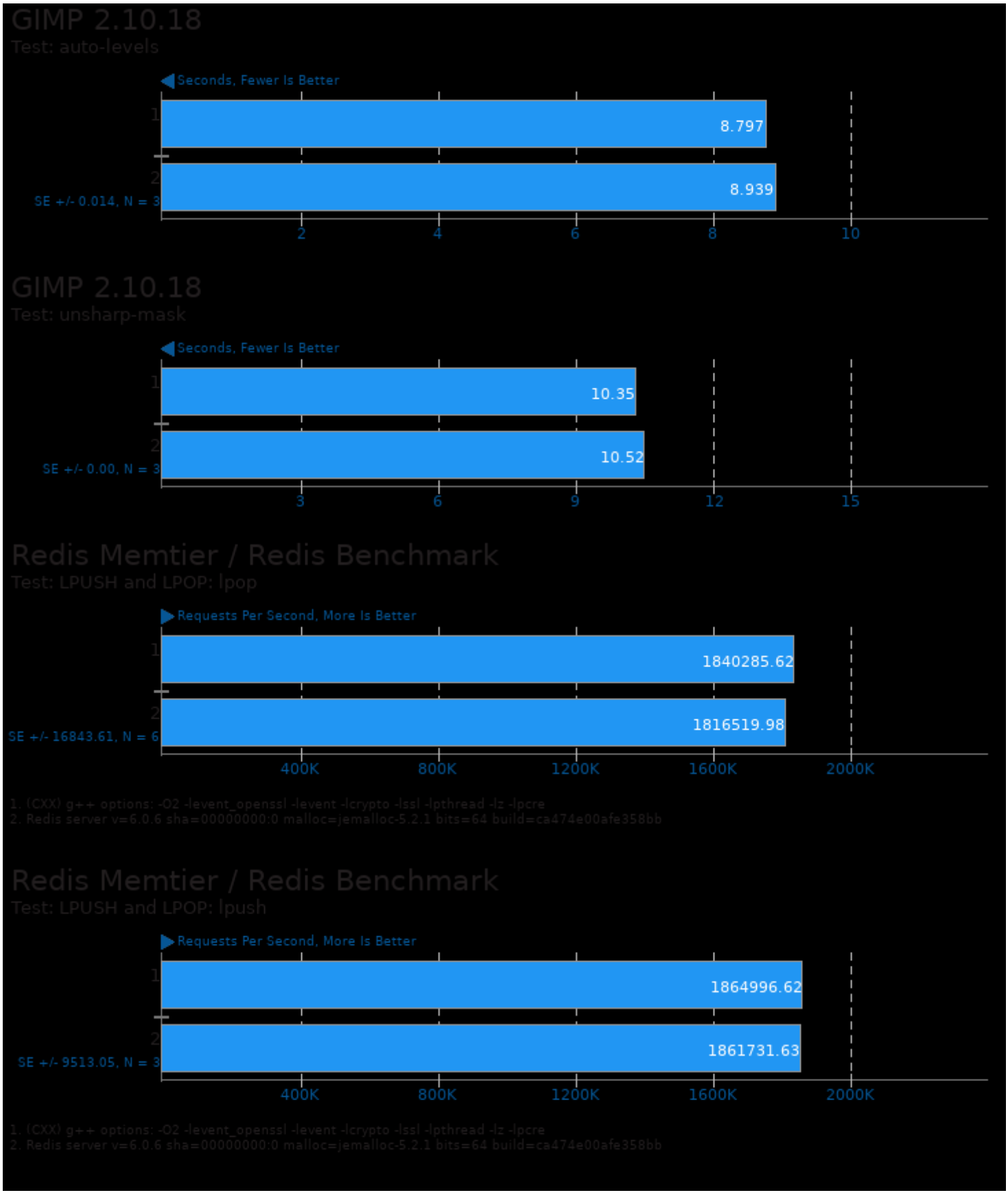
PyHPC Benchmarks - CPU - JAX - 1048576 - Equation of State (sec)	**0.009**	**0.010**
Normalized	100%	90%
Standard Deviation		3.6%
PyHPC Benchmarks - CPU - JAX - 1048576 - Isoneutral Mixing (sec)	0.146	0.146
Standard Deviation		0.4%
PyHPC Benchmarks - CPU - JAX - 4194304 - Equation of State (sec)	0.036	0.036
Standard Deviation		0%
PyHPC Benchmarks - CPU - JAX - 4194304 - Isoneutral Mixing (sec)	**0.694**	**0.696**
Normalized	100%	99.71%
Standard Deviation		0.1%
PyHPC Benchmarks - CPU - Numba - 16384 - Equation of State (sec)	0.001	0.001
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 16384 - Isoneutral Mixing (sec)	0.003	0.003
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 65536 - Equation of State (sec)	0.003	0.003
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 65536 - Isoneutral Mixing (sec)	0.014	0.014
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numpy - 16384 - Equation of State (sec)	0.002	0.002
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numpy - 16384 - Isoneutral Mixing (sec)	0.006	0.006
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numpy - 65536 - Equation of State (sec)	0.01	0.01
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numpy - 65536 - Isoneutral Mixing (sec)	0.024	0.024
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 262144 - Equation of State (sec)	0.012	0.012
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 262144 - Isoneutral Mixing (sec)	0.052	0.052
Standard Deviation		1.1%
PyHPC Benchmarks - CPU - Numpy - 262144 - Equation of State (sec)	**0.041**	**0.042**
Normalized	100%	97.62%
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numpy - 262144 - Isoneutral Mixing (sec)	**0.093**	**0.095**
Normalized	100%	97.89%
Standard Deviation		0.6%

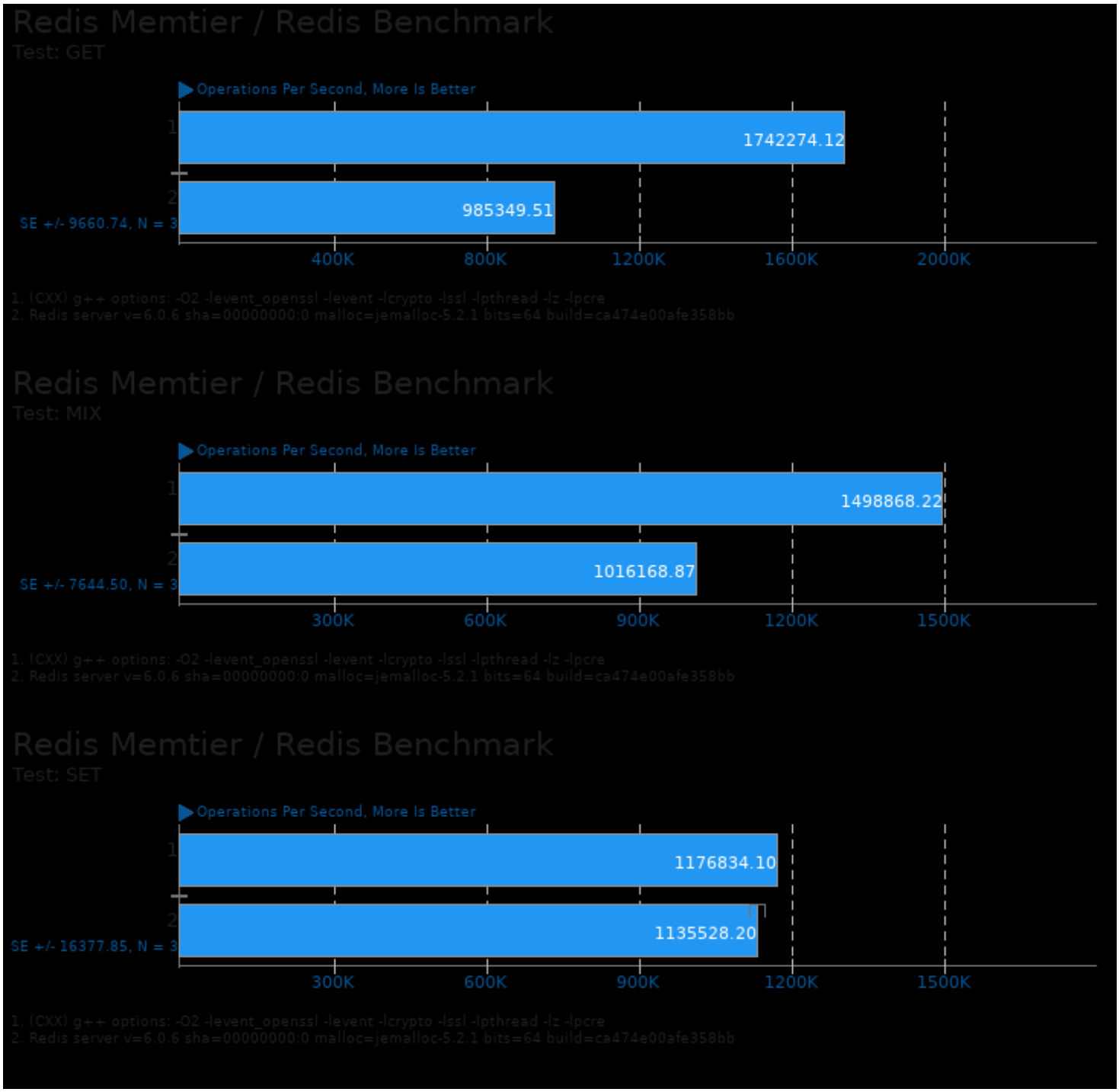
PyHPC Benchmarks - CPU - Theano - 16384 - Equation of State (sec)	0.001	0.001
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 16384 - Isoneutral Mixing (sec)	0.004	0.004
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 65536 - Equation of State (sec)	0.005	0.005
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 65536 - Isoneutral Mixing (sec)	0.016	0.016
Standard Deviation		0%
PyHPC Benchmarks - CPU - Bohrium - 16384 - Equation of State (sec)	0.019	0.019
Standard Deviation		2.7%
PyHPC Benchmarks - CPU - Bohrium - 16384 - Isoneutral Mixing (sec)	0.029	0.029
Standard Deviation		0%
PyHPC Benchmarks - CPU - Bohrium - 65536 - Equation of State (sec)	0.022	0.022
Standard Deviation		0%
PyHPC Benchmarks - CPU - Bohrium - 65536 - Isoneutral Mixing (sec)	0.041	0.041
Standard Deviation		1.4%
PyHPC Benchmarks - CPU - Numba - 1048576 - Equation of State (sec)	0.048	0.048
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 1048576 - Isoneutral Mixing (sec)	**0.243**	**0.238**
Normalized	97.94%	100%
Standard Deviation		1.1%
PyHPC Benchmarks - CPU - Numba - 4194304 - Equation of State (sec)	**0.194**	**0.19**
Normalized	97.94%	100%
Standard Deviation		0%
PyHPC Benchmarks - CPU - Numba - 4194304 - Isoneutral Mixing (sec)	**1.001**	**0.998**
Normalized	99.7%	100%
Standard Deviation		0.9%
PyHPC Benchmarks - CPU - Numpy - 1048576 - Equation of State (sec)	**0.179**	**0.180**
Normalized	100%	99.44%
Standard Deviation		0.8%
PyHPC Benchmarks - CPU - Numpy - 1048576 - Isoneutral Mixing (sec)	**0.436**	**0.433**
Normalized	99.31%	100%
Standard Deviation		0.4%
PyHPC Benchmarks - CPU - Numpy - 4194304 - Equation of State (sec)	**1.048**	**1.053**
Normalized	100%	99.53%
Standard Deviation		0.2%

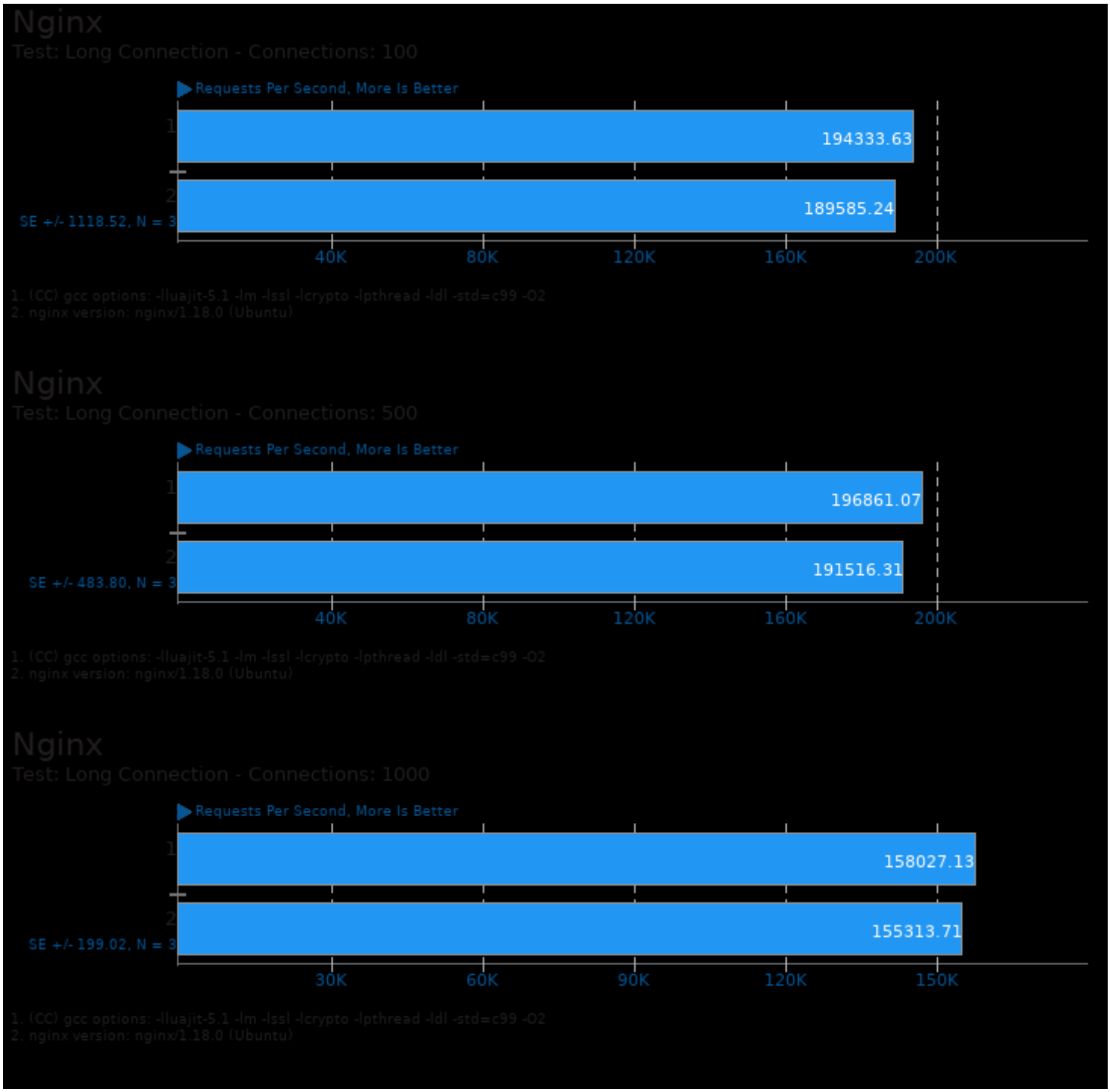
PyHPC Benchmarks - CPU - Numpy - 4194304 - Isoneutral Mixing (sec)	**1.958**	**1.964**
Normalized	100%	99.69%
Standard Deviation		0.3%
PyHPC Benchmarks - CPU - PyTorch - 16384 - Isoneutral Mixing (sec)	0.004	0.004
Standard Deviation		0%
PyHPC Benchmarks - CPU - PyTorch - 65536 - Equation of State (sec)	0.001	0.001
Standard Deviation		0%
PyHPC Benchmarks - CPU - PyTorch - 65536 - Isoneutral Mixing (sec)	0.013	0.013
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 262144 - Equation of State (sec)	**0.017**	**0.016**
Normalized	94.12%	100%
Standard Deviation		3%
PyHPC Benchmarks - CPU - Theano - 262144 - Isoneutral Mixing (sec)	**0.061**	**0.062**
Normalized	100%	98.39%
Standard Deviation		0%
PyHPC Benchmarks - CPU - Bohrium - 262144 - Equation of State (sec)	**0.031**	**0.032**
Normalized	100%	96.88%
Standard Deviation		1.8%
PyHPC Benchmarks - CPU - Bohrium - 262144 - Isoneutral Mixing (sec)	**0.092**	**0.094**
Normalized	100%	97.87%
Standard Deviation		0%
PyHPC Benchmarks - CPU - PyTorch - 262144 - Equation of State (sec)	0.004	0.004
Standard Deviation		0%
PyHPC Benchmarks - CPU - PyTorch - 262144 - Isoneutral Mixing (sec)	**0.055**	**0.054**
Normalized	98.18%	100%
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 1048576 - Equation of State (sec)	0.068	0.068
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 1048576 - Isoneutral Mixing (sec)	**0.293**	**0.297**
Normalized	100%	98.65%
Standard Deviation		0.2%
PyHPC Benchmarks - CPU - Theano - 4194304 - Equation of State (sec)	**0.274**	**0.27**
Normalized	98.54%	100%
Standard Deviation		0%
PyHPC Benchmarks - CPU - Theano - 4194304 - Isoneutral Mixing (sec)	**1.302**	**1.284**
Normalized	98.62%	100%
Standard Deviation		0.8%

PyHPC Benchmarks - CPU - Bohrium - 1048576 - Equation of State (sec)	**0.073**	**0.072**
Normalized	98.63%	100%
Standard Deviation		0.8%
PyHPC Benchmarks - CPU - Bohrium - 1048576 - Isoneutral Mixing (sec)	**0.307**	**0.302**
Normalized	98.37%	100%
Standard Deviation		1.1%
PyHPC Benchmarks - CPU - Bohrium - 4194304 - Equation of State (sec)	**0.23**	**0.234**
Normalized	100%	98.29%
Standard Deviation		1%
PyHPC Benchmarks - CPU - Bohrium - 4194304 - Isoneutral Mixing (sec)	**1.167**	**1.158**
Normalized	99.23%	100%
Standard Deviation		0.2%
PyHPC Benchmarks - CPU - PyTorch - 1048576 - Equation of State (sec)	**0.02**	**0.019**
Normalized	95%	100%
Standard Deviation		5.4%
PyHPC Benchmarks - CPU - PyTorch - 1048576 - Isoneutral Mixing (sec)	**0.273**	**0.272**
Normalized	99.63%	100%
Standard Deviation		0.4%
PyHPC Benchmarks - CPU - PyTorch - 4194304 - Equation of State (sec)	**0.073**	**0.076**
Normalized	100%	96.05%
Standard Deviation		5%
PyHPC Benchmarks - CPU - PyTorch - 4194304 - Isoneutral Mixing (sec)	**1.337**	**1.349**
Normalized	100%	99.11%
Standard Deviation		0.9%
PyHPC Benchmarks - CPU - TensorFlow - 16384 - Equation of State (sec)	0.001	0.001
Standard Deviation		0%
PyHPC Benchmarks - CPU - TensorFlow - 65536 - Equation of State (sec)	0.002	0.002
Standard Deviation		0%
PyHPC Benchmarks - CPU - TensorFlow - 262144 - Equation of State (sec)	0.005	0.005
Standard Deviation		0%
PyHPC Benchmarks - CPU - TensorFlow - 1048576 - Equation of State (sec)	0.023	0.023
Standard Deviation		2.5%
PyHPC Benchmarks - CPU - TensorFlow - 4194304 - Equation of State (sec)	**0.109**	**0.107**
Normalized	98.17%	100%
Standard Deviation		0.5%


OpenSSL
sign/s, More Is Better
1
2626.0
2
2597.1
SE +/- 10.63, N = 3
600
1200
1800
2400
3000
1. OpenSSL 1.1.1f 31 Mar 2020
OpenSSL
verify/s, More Is Better
1
170317.0
2
167814.1
SE +/- 655.48, N = 3
40K
80K
120K
160K
200K
1. OpenSSL 1.1.1f 31 Mar 2020
GIMP 2.10.18
Test: resize
Seconds, Fewer Is Better
1
5.616
2
5.628
SE +/- 0.029, N = 3
1.2663
2.5326
3.7989
5.0652
6.3315
GIMP 2.10.18
Test: rotate
Seconds, Fewer Is Better
1
8.563
2
8.611
SE +/- 0.037, N = 3
2
4
6
8
10

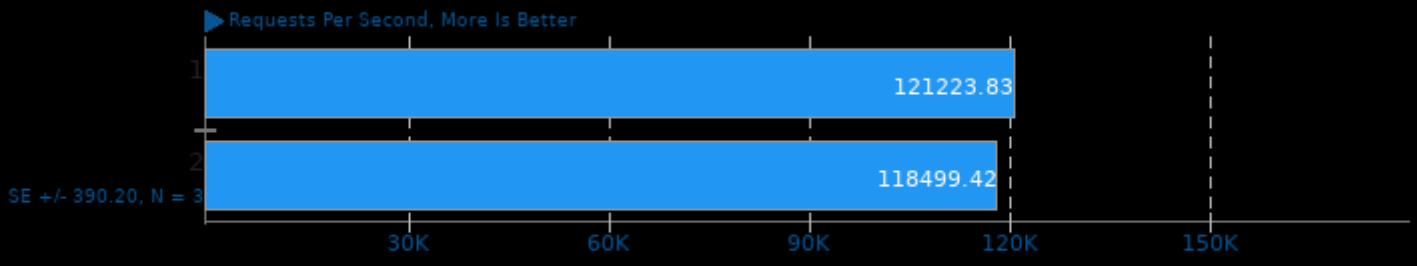

GIMP 2.10.18
Test: auto-levels
Seconds, Fewer Is Better
1
8.797
2
8.939
SE +/- 0.014, N = 3
2
4
6
8
10
GIMP 2.10.18
Test: unsharp-mask
Seconds, Fewer Is Better
1
10.35
2
10.52
SE +/- 0.00, N = 3
3
6
9
12
15
Redis Memtier / Redis Benchmark
Test: LPUSH and LPOP: lpop
Requests Per Second, More Is Better
1
1840285.62
2
1816519.98
SE +/- 16843.61, N = 6
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.6 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=ca474e00afe358bb
Redis Memtier / Redis Benchmark
Test: LPUSH and LPOP: lpush
Requests Per Second, More Is Better
1
1864996.62
2
1861731.63
SE +/- 9513.05, N = 3
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.6 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=ca474e00afe358bb


Redis Memtier / Redis Benchmark
Test: GET
Operations Per Second, More Is Better
1742274.12
985349.51
SE +/- 9660.74, N = 3
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.6 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=ca474e00afe358bb
Redis Memtier / Redis Benchmark
Test: MIX
Operations Per Second, More Is Better
1498868.22
1016168.87
SE +/- 7644.50, N = 3
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.6 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=ca474e00afe358bb
Redis Memtier / Redis Benchmark
Test: SET
Operations Per Second, More Is Better
1176834.10
1135528.20
SE +/- 16377.85, N = 3
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
2. Redis server v=6.0.6 sha=00000000:0 malloc=jemalloc-5.2.1 bits=64 build=ca474e00afe358bb


Nginx
Test: Long Connection - Connections: 100
Requests Per Second, More Is Better
1
194333.63
2
189585.24
SE +/- 1118.52, N = 3
40K
80K
120K
160K
200K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)
Nginx
Test: Long Connection - Connections: 500
Requests Per Second, More Is Better
1
196861.07
2
191516.31
SE +/- 483.80, N = 3
40K
80K
120K
160K
200K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)
Nginx
Test: Long Connection - Connections: 1000
Requests Per Second, More Is Better
1
158027.13
2
155313.71
SE +/- 199.02, N = 3
30K
60K
90K
120K
150K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)

Nginx

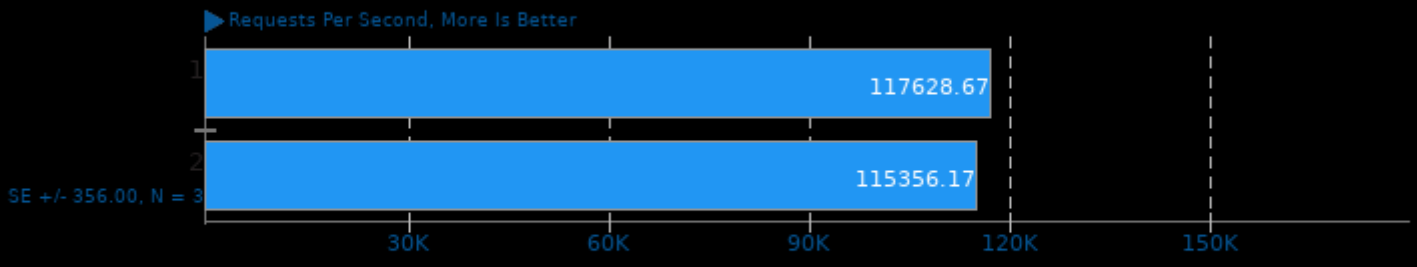
Test: Short Connection - Connections: 100



1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)

Nginx

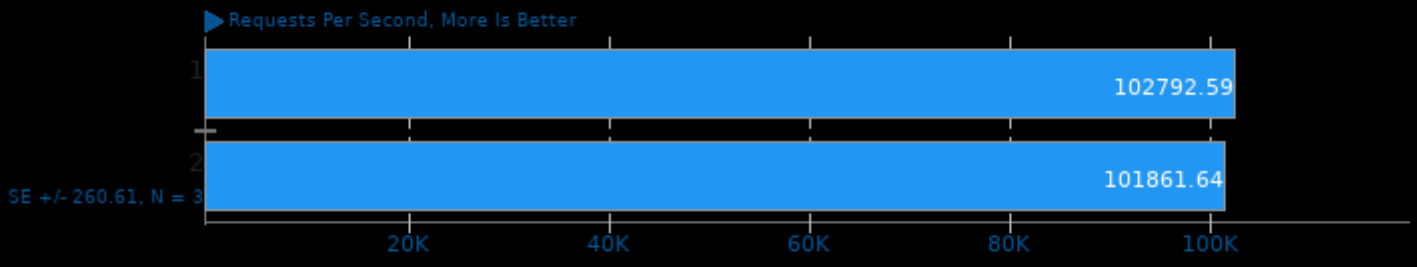
Test: Short Connection - Connections: 500



1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)

Nginx

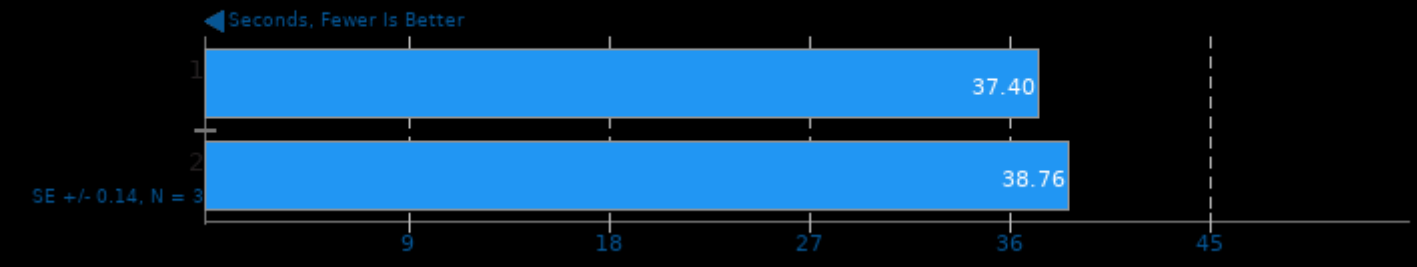
Test: Short Connection - Connections: 1000

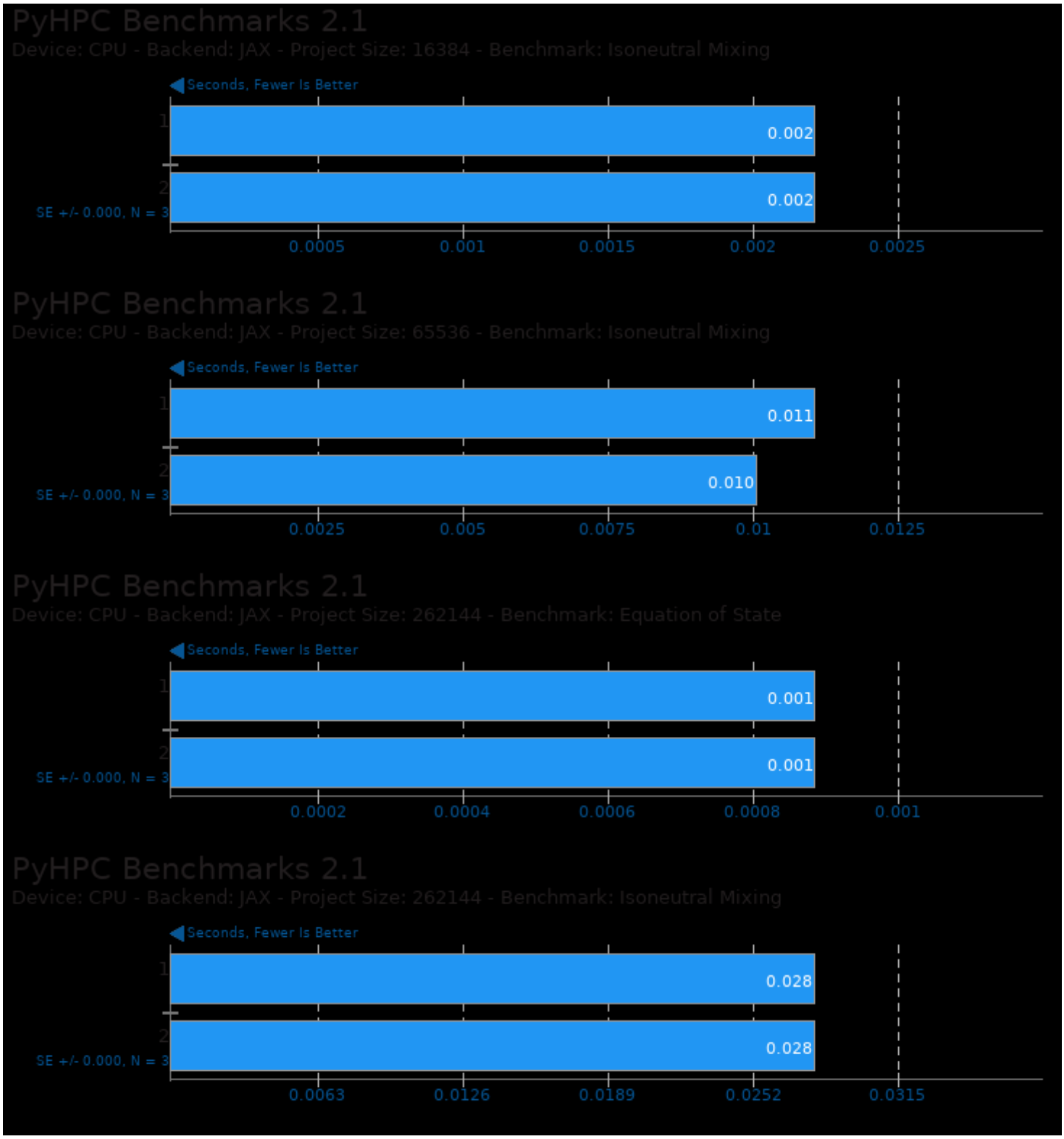


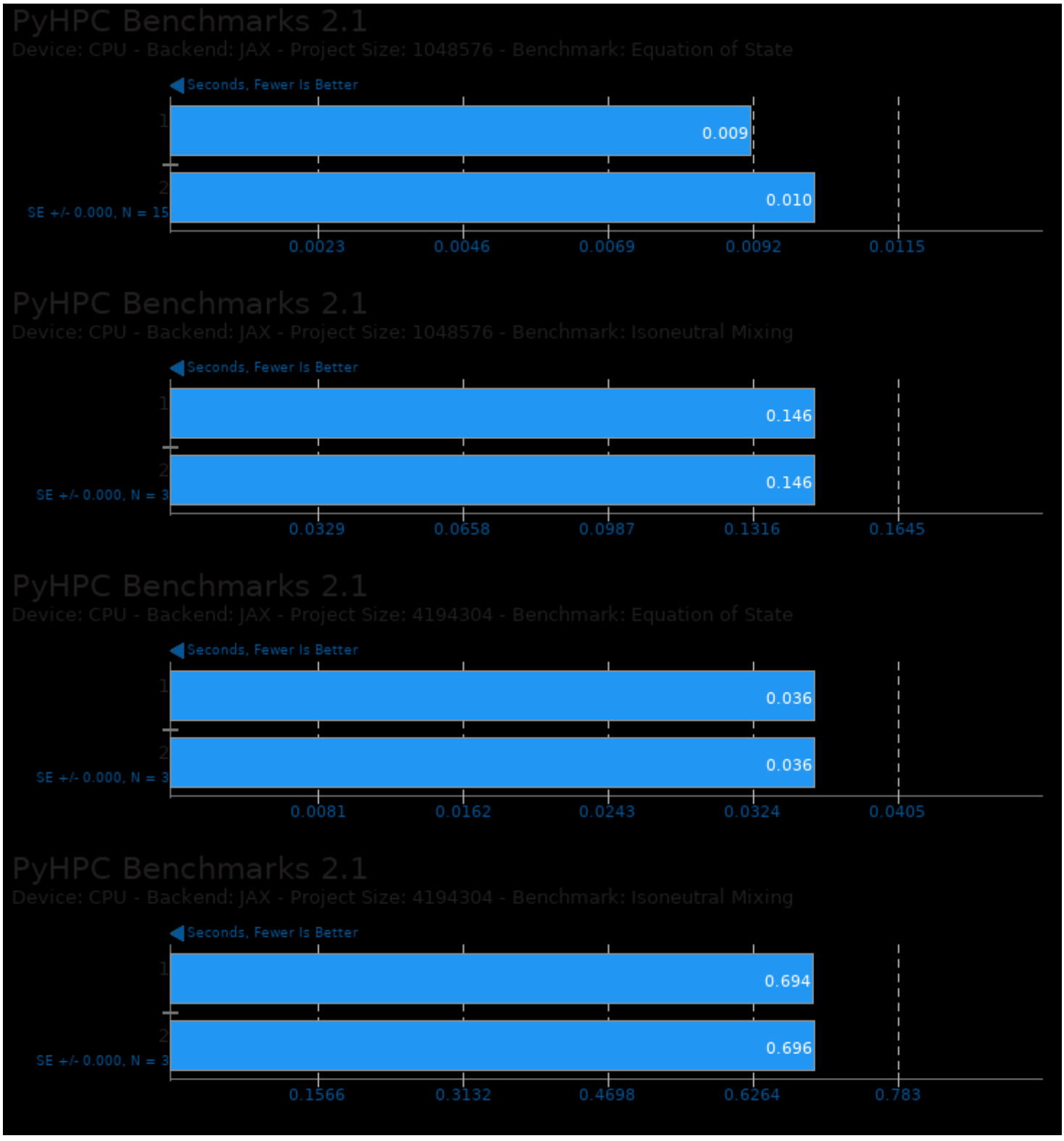
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
2. nginx version: nginx/1.18.0 (Ubuntu)

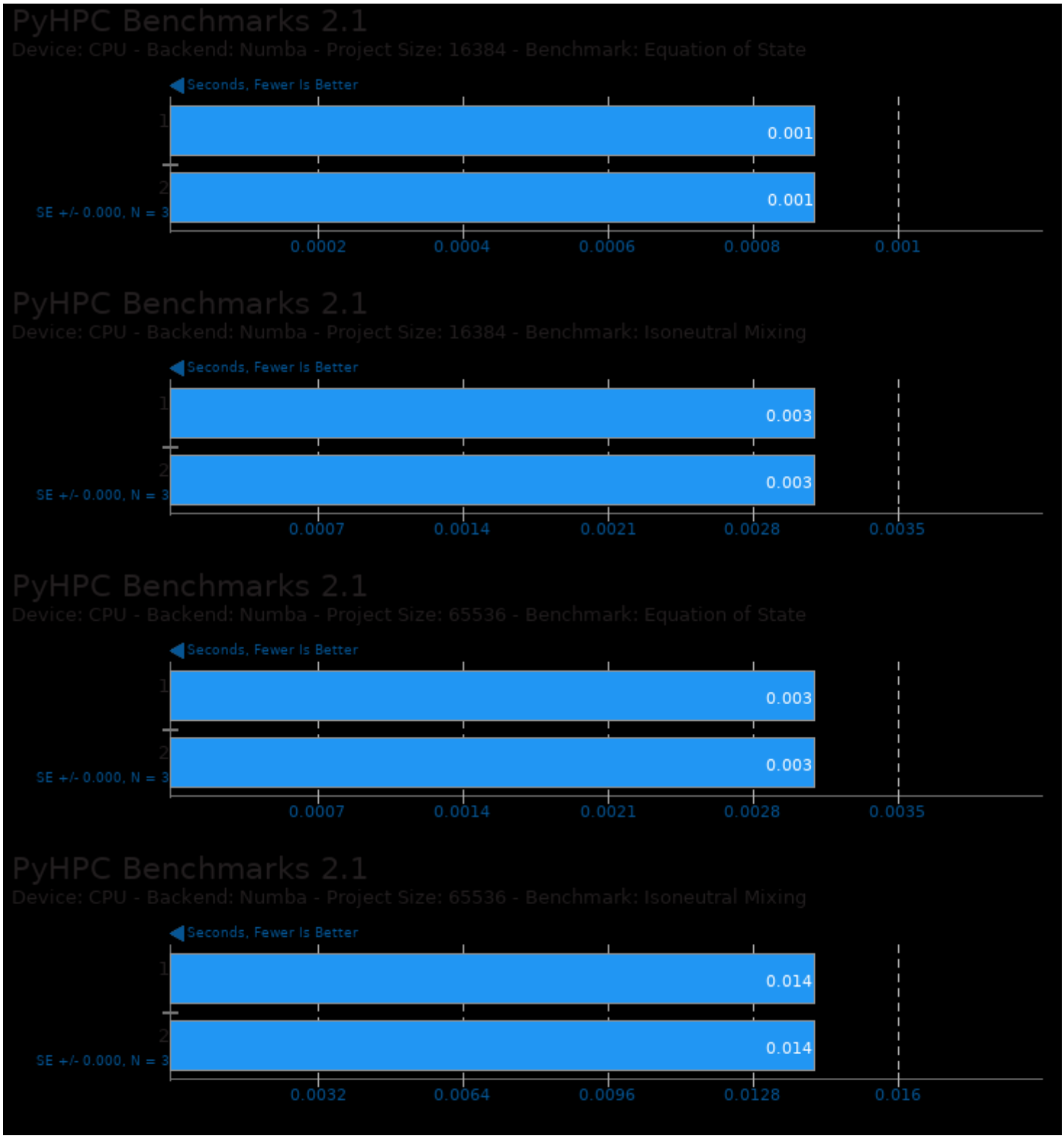
RAR Compression 6.0.2

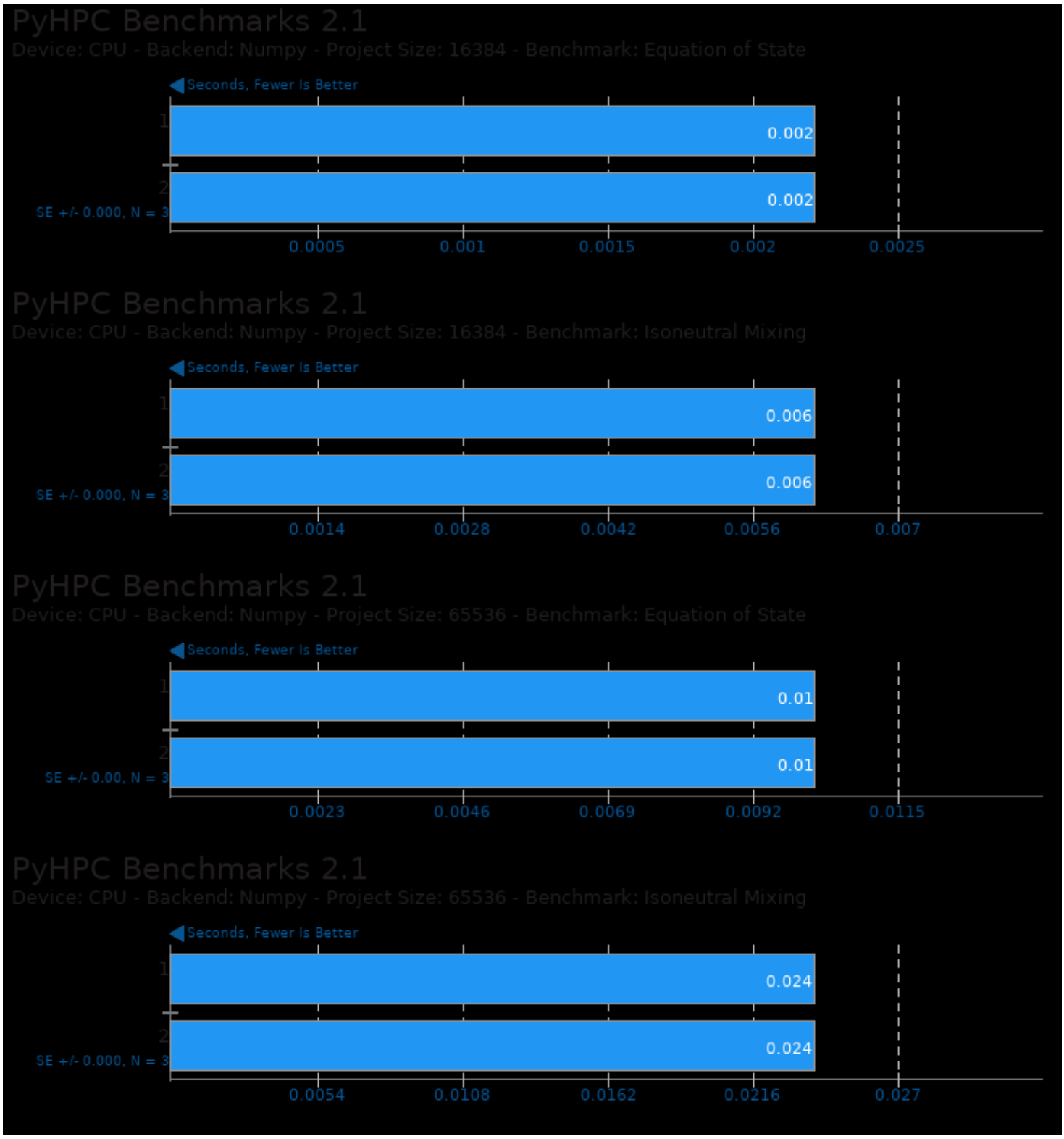
Linux Source Tree Archiving To RAR

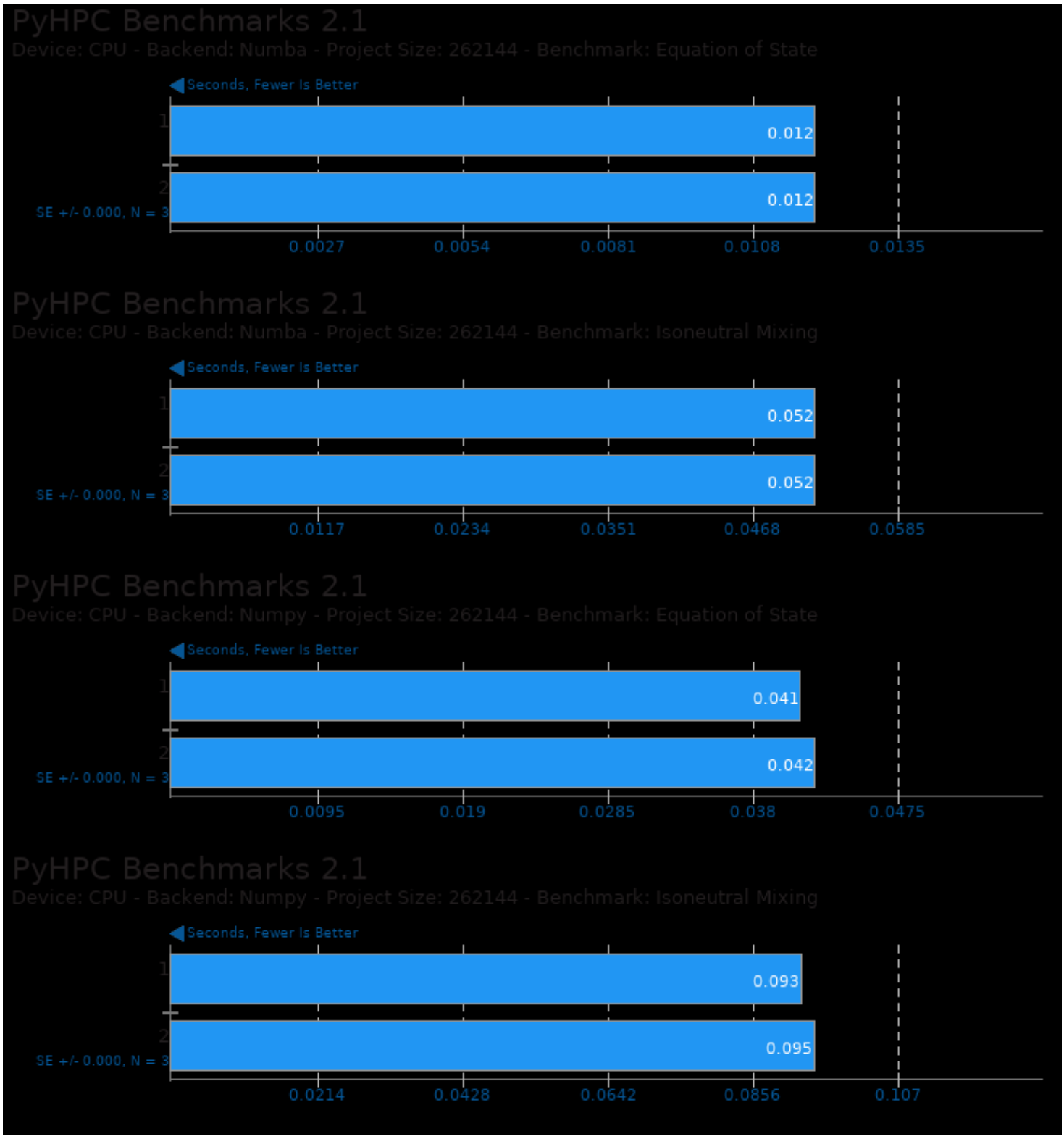


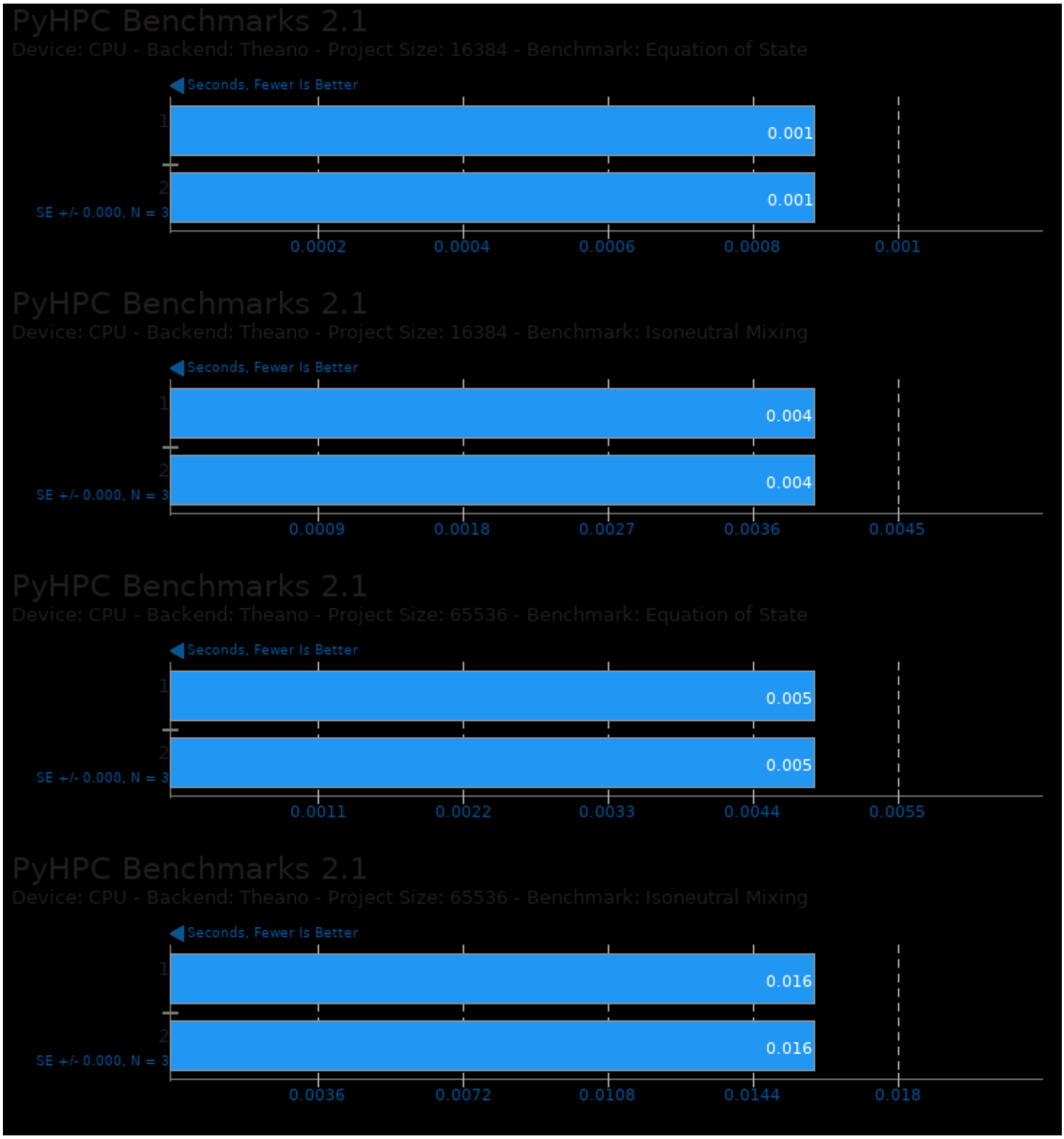

PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
0.002
0.002
SE +/- 0.000, N = 3
0.0005
0.001
0.0015
0.002
0.0025
PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
0.011
0.010
SE +/- 0.000, N = 3
0.0025
0.005
0.0075
0.01
0.0125
PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
0.001
0.001
SE +/- 0.000, N = 3
0.0002
0.0004
0.0006
0.0008
0.001
PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
0.028
0.028
SE +/- 0.000, N = 3
0.0063
0.0126
0.0189
0.0252
0.0315

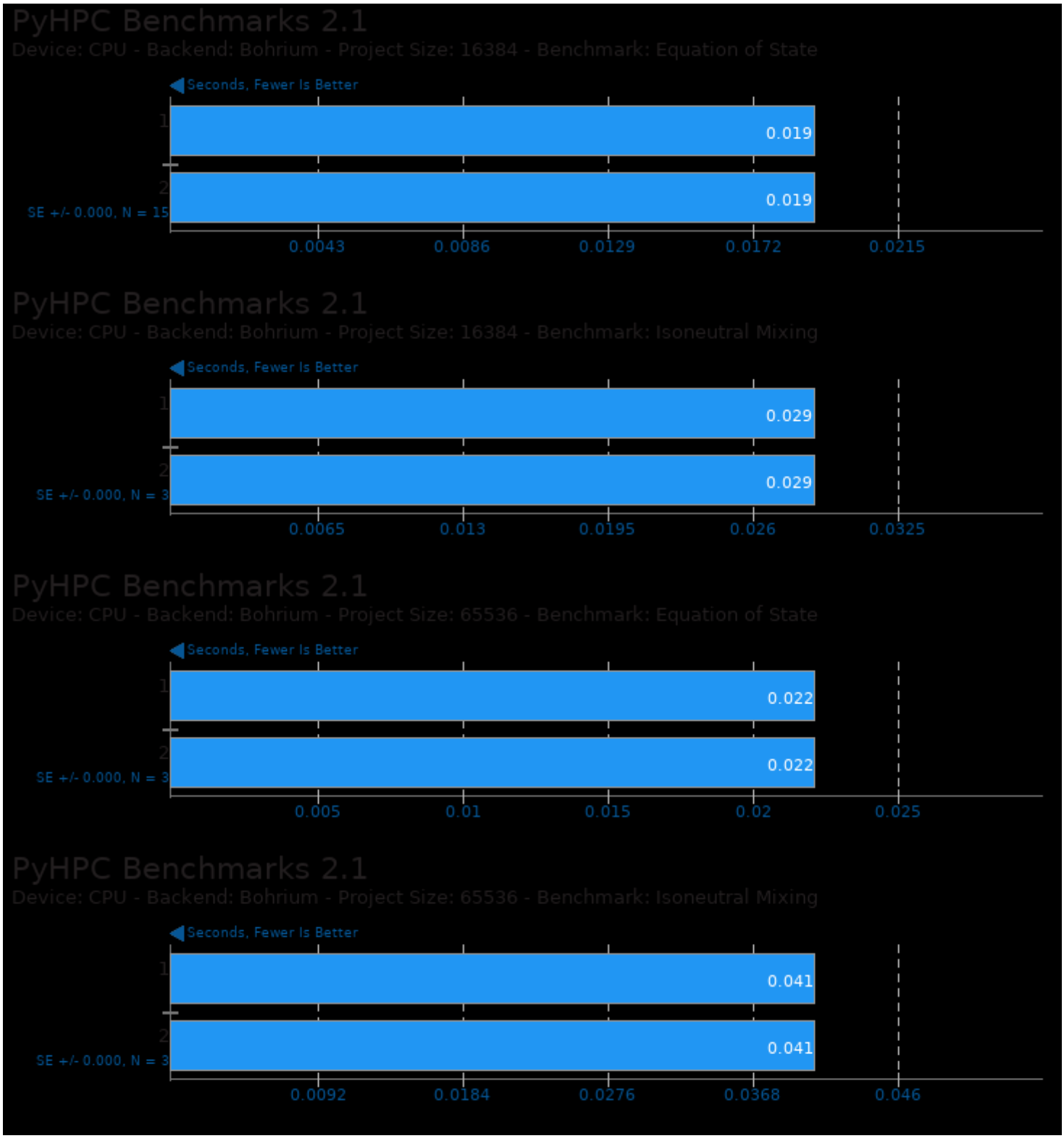

PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.009
0.010
SE +/- 0.000, N = 15
0.0023
0.0046
0.0069
0.0092
0.0115
PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.146
0.146
SE +/- 0.000, N = 3
0.0329
0.0658
0.0987
0.1316
0.1645
PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.036
0.036
SE +/- 0.000, N = 3
0.0081
0.0162
0.0243
0.0324
0.0405
PyHPC Benchmarks 2.1
Device: CPU - Backend: JAX - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.694
0.696
SE +/- 0.000, N = 3
0.1566
0.3132
0.4698
0.6264
0.783

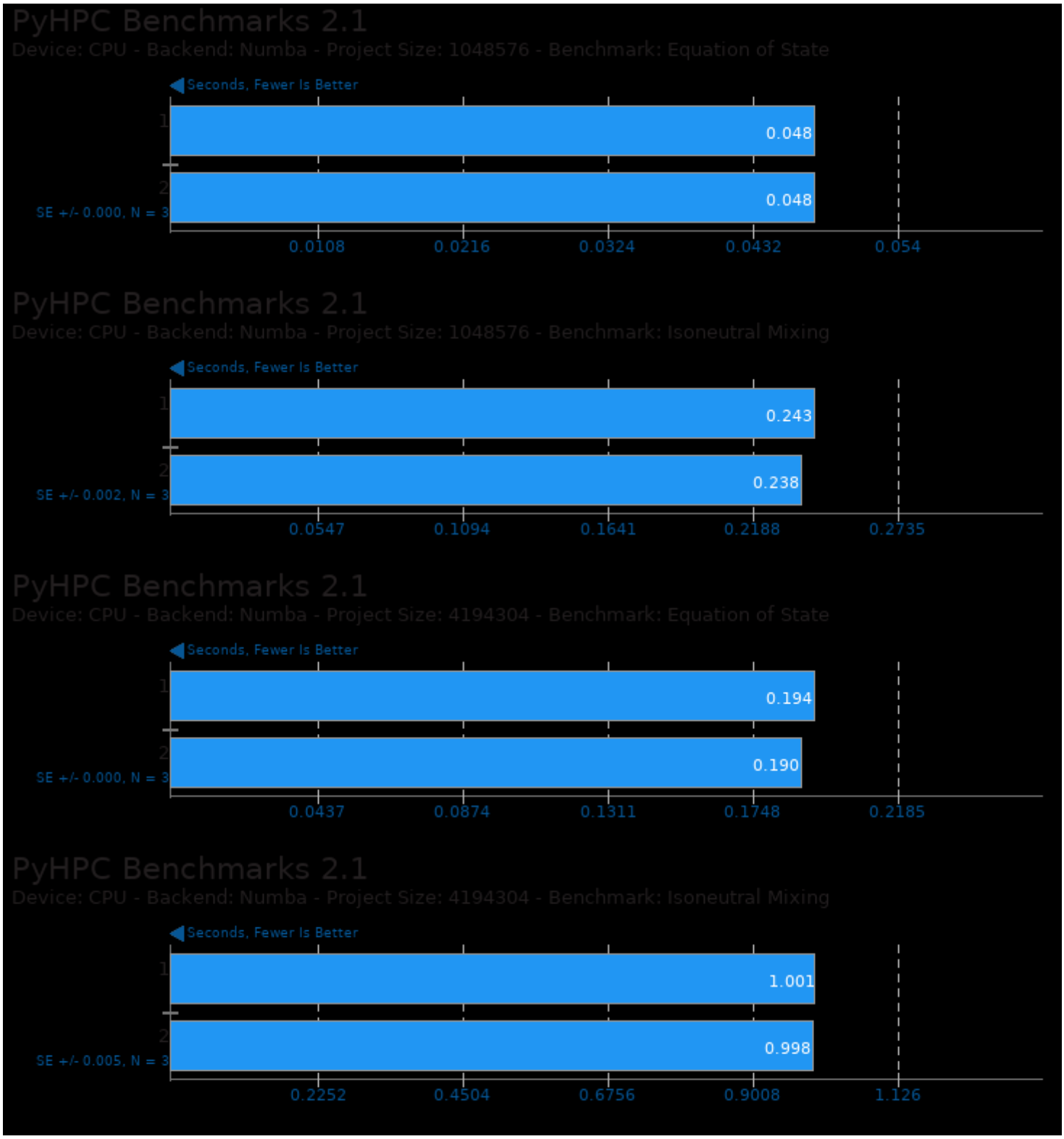

PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.001
0.001
SE +/- 0.000, N = 3
0.0002
0.0004
0.0006
0.0008
0.001
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.003
0.003
SE +/- 0.000, N = 3
0.0007
0.0014
0.0021
0.0028
0.0035
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.003
0.003
SE +/- 0.000, N = 3
0.0007
0.0014
0.0021
0.0028
0.0035
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.014
0.014
SE +/- 0.000, N = 3
0.0032
0.0064
0.0096
0.0128
0.016

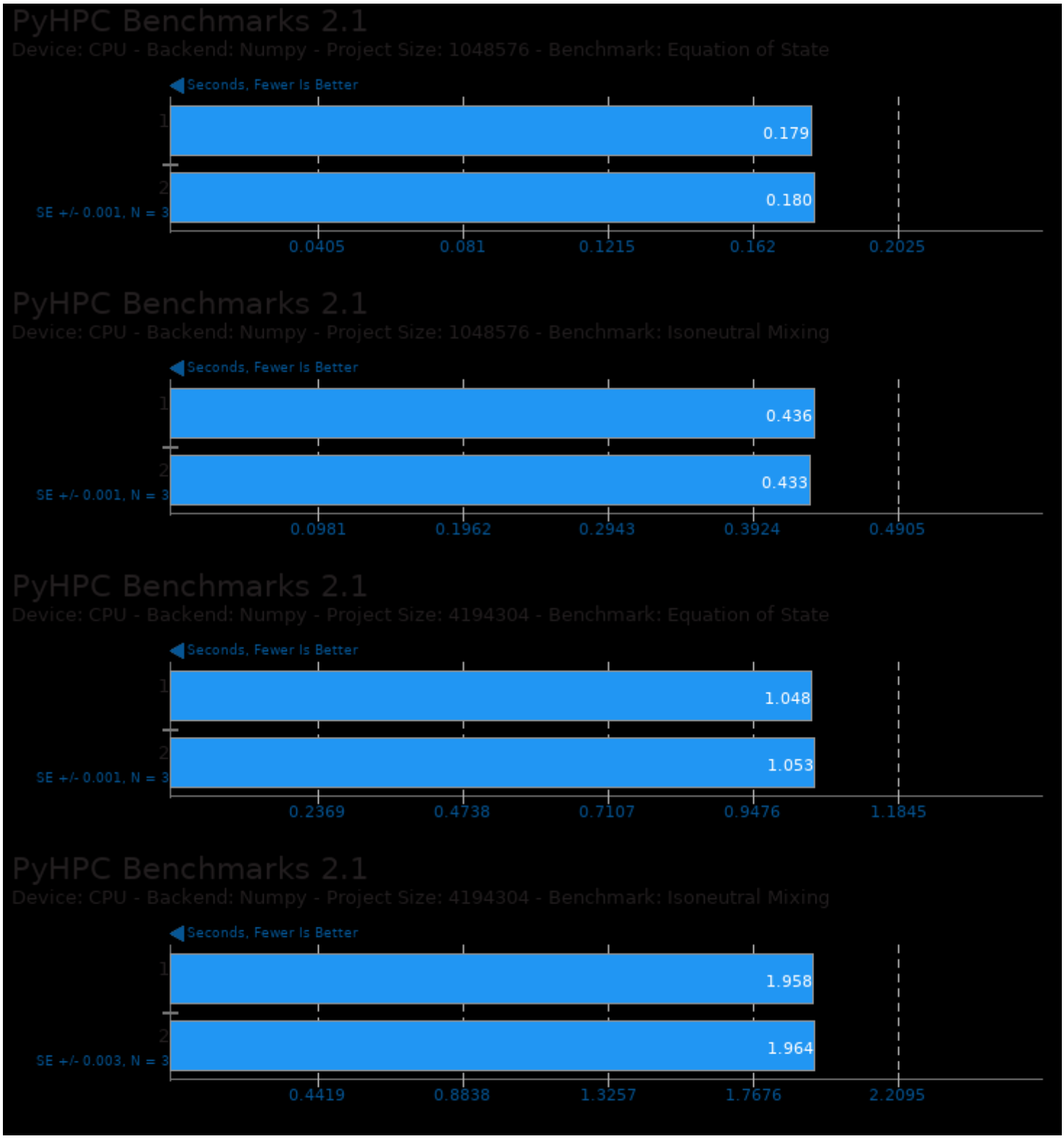

PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.002
0.002
SE +/- 0.000, N = 3
0.0005
0.001
0.0015
0.002
0.0025
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.006
0.006
SE +/- 0.000, N = 3
0.0014
0.0028
0.0042
0.0056
0.007
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.01
0.01
SE +/- 0.00, N = 3
0.0023
0.0046
0.0069
0.0092
0.0115
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.024
0.024
SE +/- 0.000, N = 3
0.0054
0.0108
0.0162
0.0216
0.027

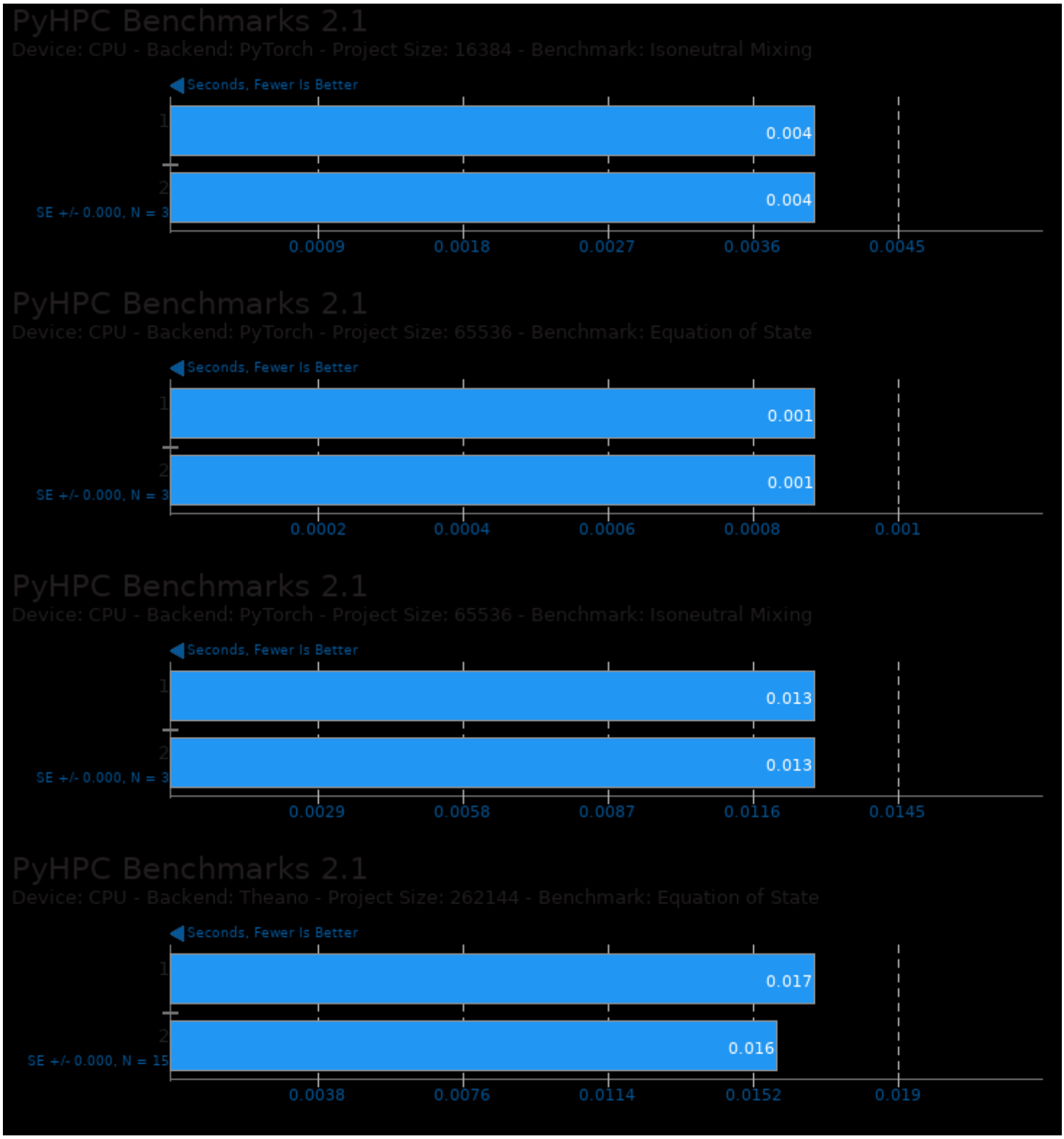

PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.012
2
0.012
SE +/- 0.000, N = 3
0.0027
0.0054
0.0081
0.0108
0.0135
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.052
2
0.052
SE +/- 0.000, N = 3
0.0117
0.0234
0.0351
0.0468
0.0585
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.041
2
0.042
SE +/- 0.000, N = 3
0.0095
0.019
0.0285
0.038
0.0475
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.093
2
0.095
SE +/- 0.000, N = 3
0.0214
0.0428
0.0642
0.0856
0.107

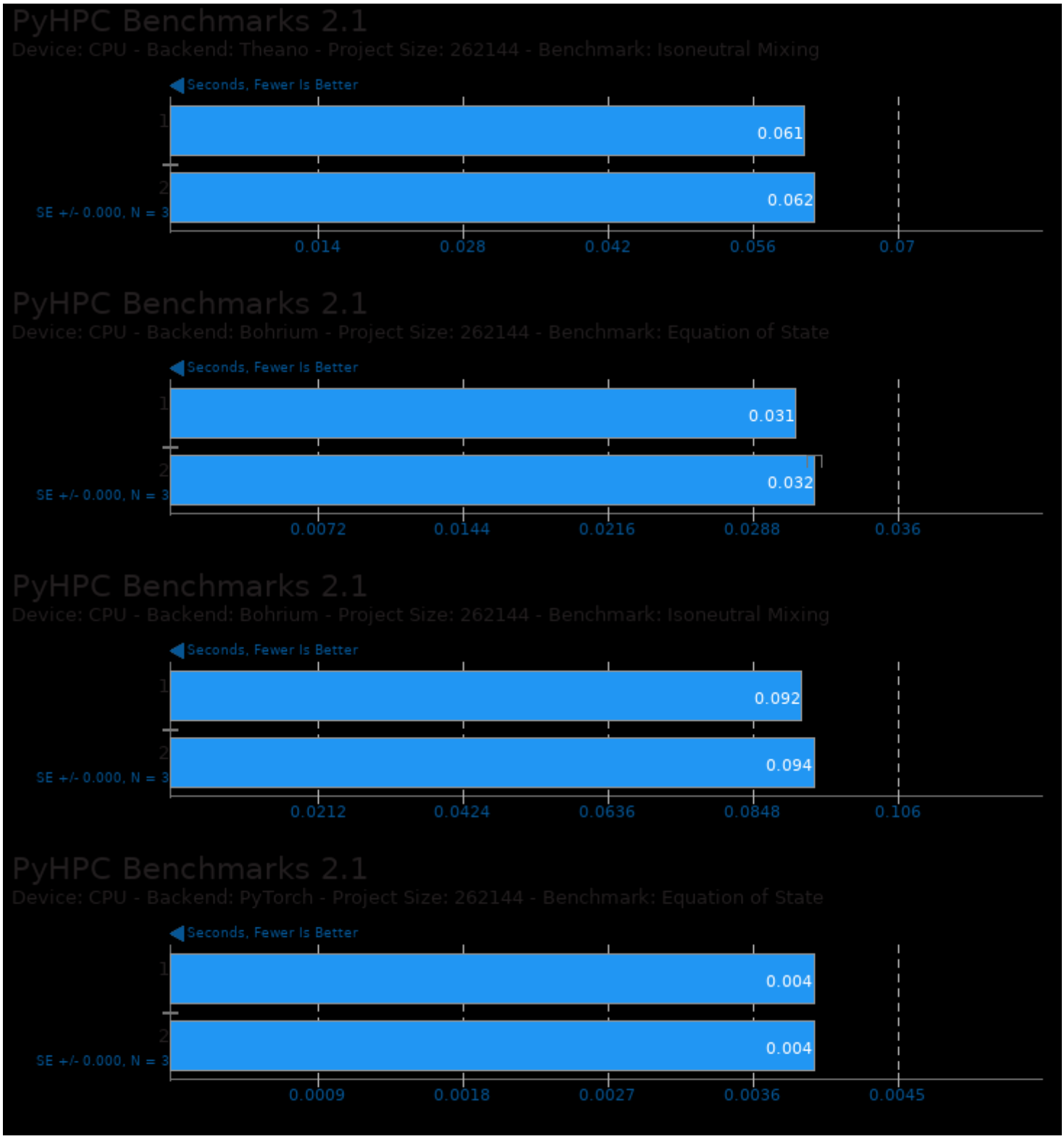

PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.001
2
0.001
SE +/- 0.000, N = 3
0.0002
0.0004
0.0006
0.0008
0.001
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.004
2
0.004
SE +/- 0.000, N = 3
0.0009
0.0018
0.0027
0.0036
0.0045
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.005
2
0.005
SE +/- 0.000, N = 3
0.0011
0.0022
0.0033
0.0044
0.0055
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.016
2
0.016
SE +/- 0.000, N = 3
0.0036
0.0072
0.0108
0.0144
0.018

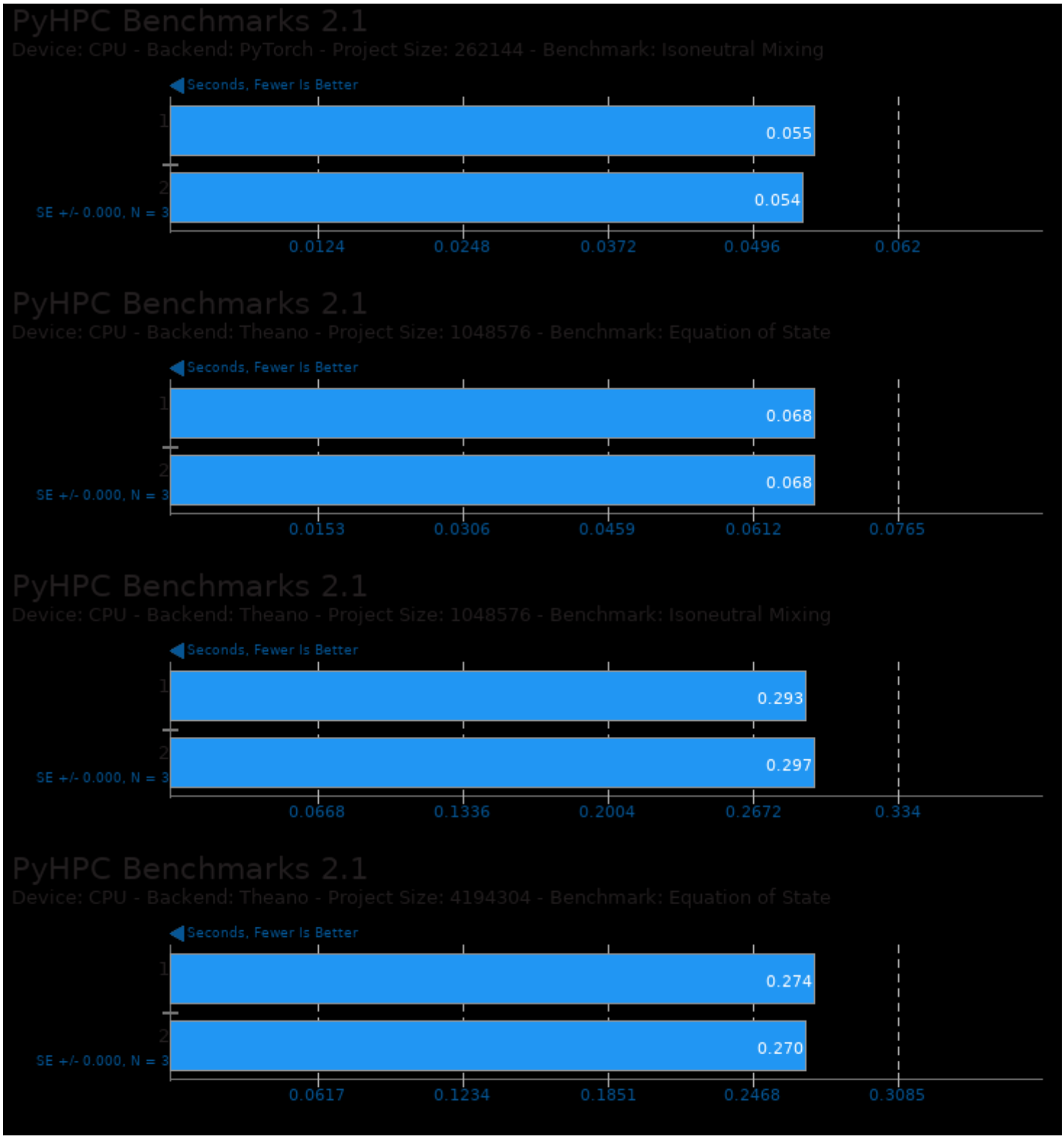

PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.019
0.019
SE +/- 0.000, N = 15
0.0043
0.0086
0.0129
0.0172
0.0215
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.029
0.029
SE +/- 0.000, N = 3
0.0065
0.013
0.0195
0.026
0.0325
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
2
0.022
0.022
SE +/- 0.000, N = 3
0.005
0.01
0.015
0.02
0.025
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
2
0.041
0.041
SE +/- 0.000, N = 3
0.0092
0.0184
0.0276
0.0368
0.046

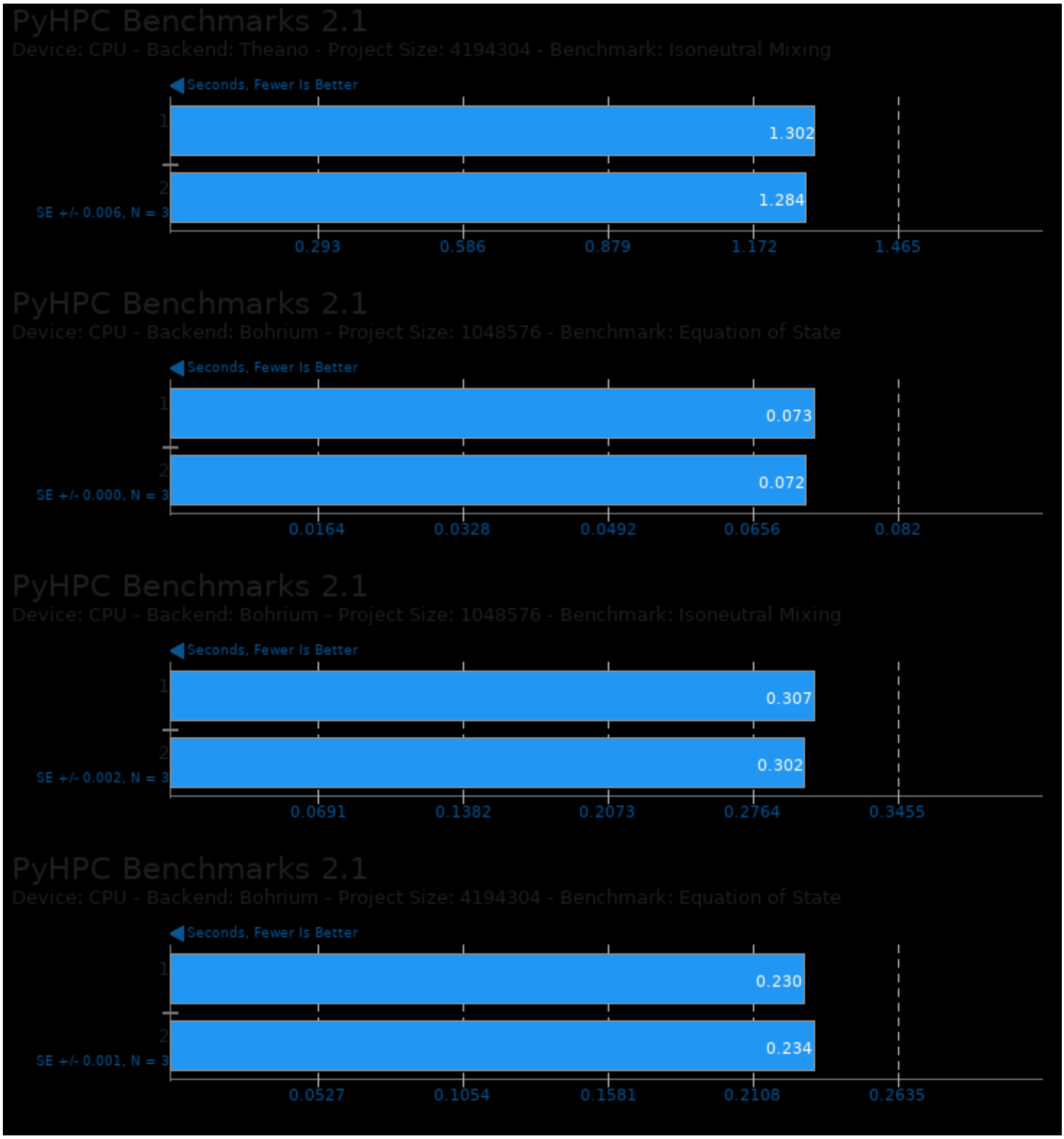

PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.048
2
0.048
SE +/- 0.000, N = 3
0.0108
0.0216
0.0324
0.0432
0.054
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.243
2
0.238
SE +/- 0.002, N = 3
0.0547
0.1094
0.1641
0.2188
0.2735
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.194
2
0.190
SE +/- 0.000, N = 3
0.0437
0.0874
0.1311
0.1748
0.2185
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numba - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
1.001
2
0.998
SE +/- 0.005, N = 3
0.2252
0.4504
0.6756
0.9008
1.126

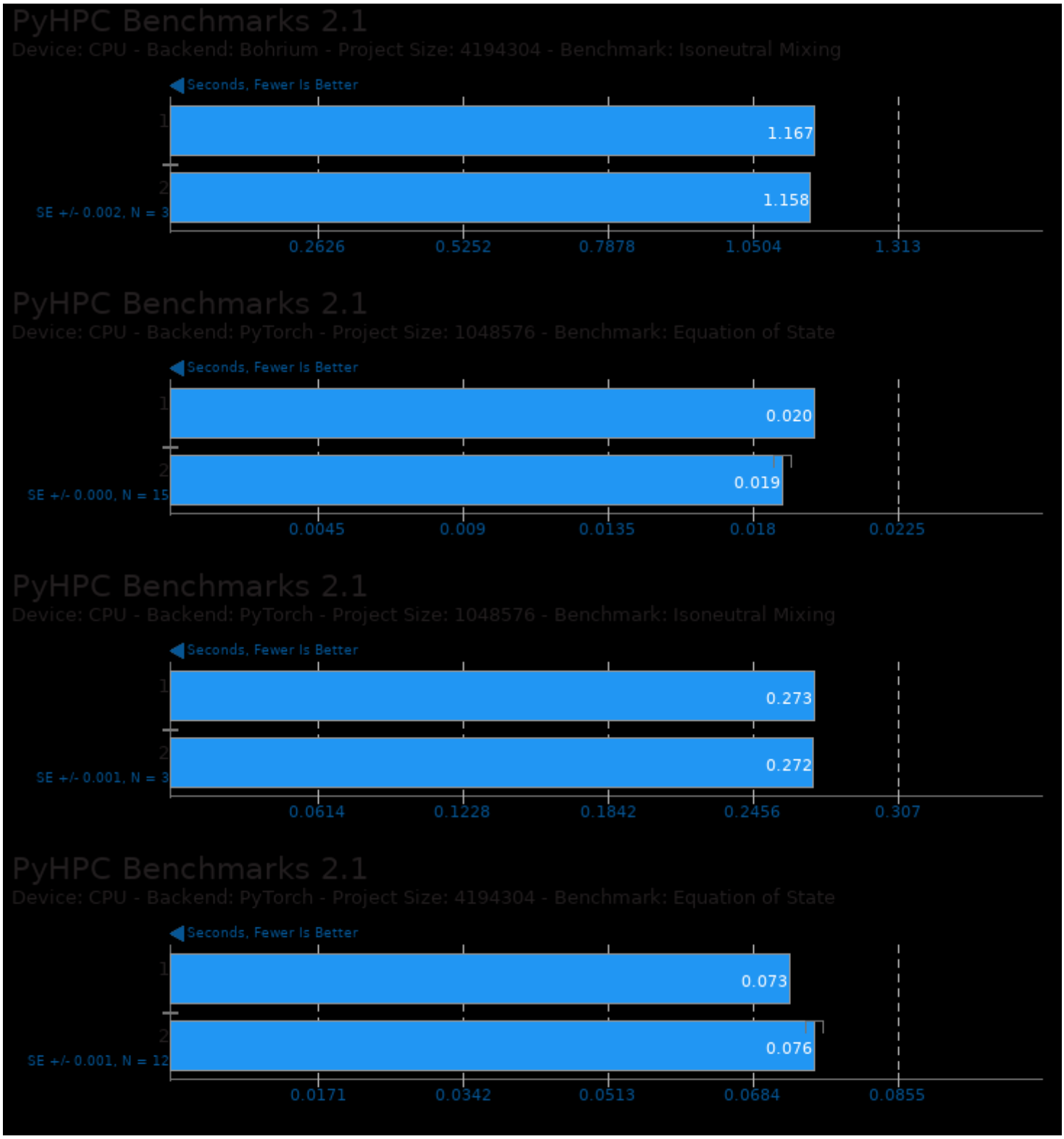

PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.179
2
0.180
SE +/- 0.001, N = 3
0.0405
0.081
0.1215
0.162
0.2025
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.436
2
0.433
SE +/- 0.001, N = 3
0.0981
0.1962
0.2943
0.3924
0.4905
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
1.048
2
1.053
SE +/- 0.001, N = 3
0.2369
0.4738
0.7107
0.9476
1.1845
PyHPC Benchmarks 2.1
Device: CPU - Backend: Numpy - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
1.958
2
1.964
SE +/- 0.003, N = 3
0.4419
0.8838
1.3257
1.7676
2.2095

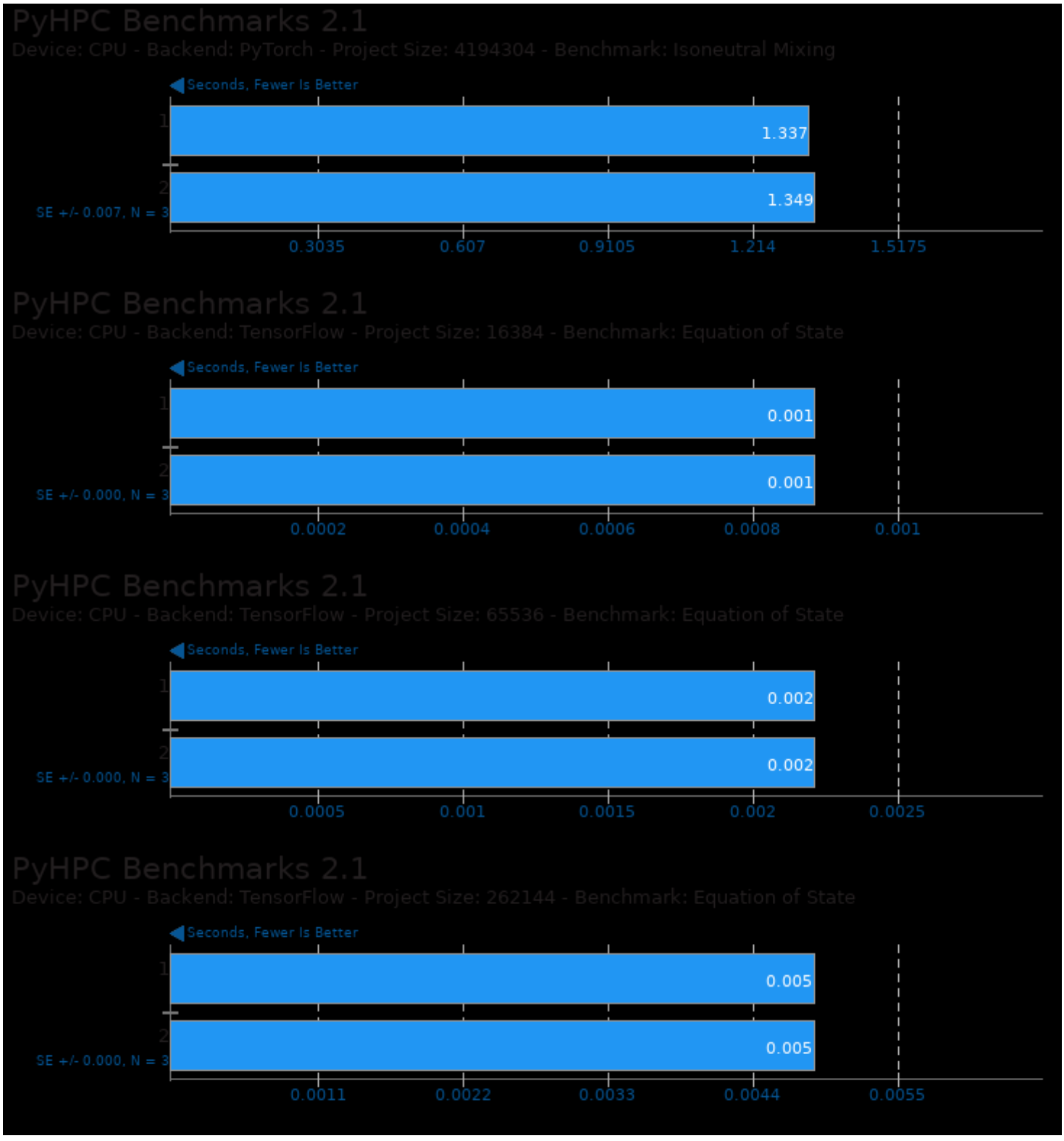

PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.004
2
0.004
SE +/- 0.000, N = 3
0.0009
0.0018
0.0027
0.0036
0.0045
PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.001
2
0.001
SE +/- 0.000, N = 3
0.0002
0.0004
0.0006
0.0008
0.001
PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.013
2
0.013
SE +/- 0.000, N = 3
0.0029
0.0058
0.0087
0.0116
0.0145
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.017
2
0.016
SE +/- 0.000, N = 15
0.0038
0.0076
0.0114
0.0152
0.019

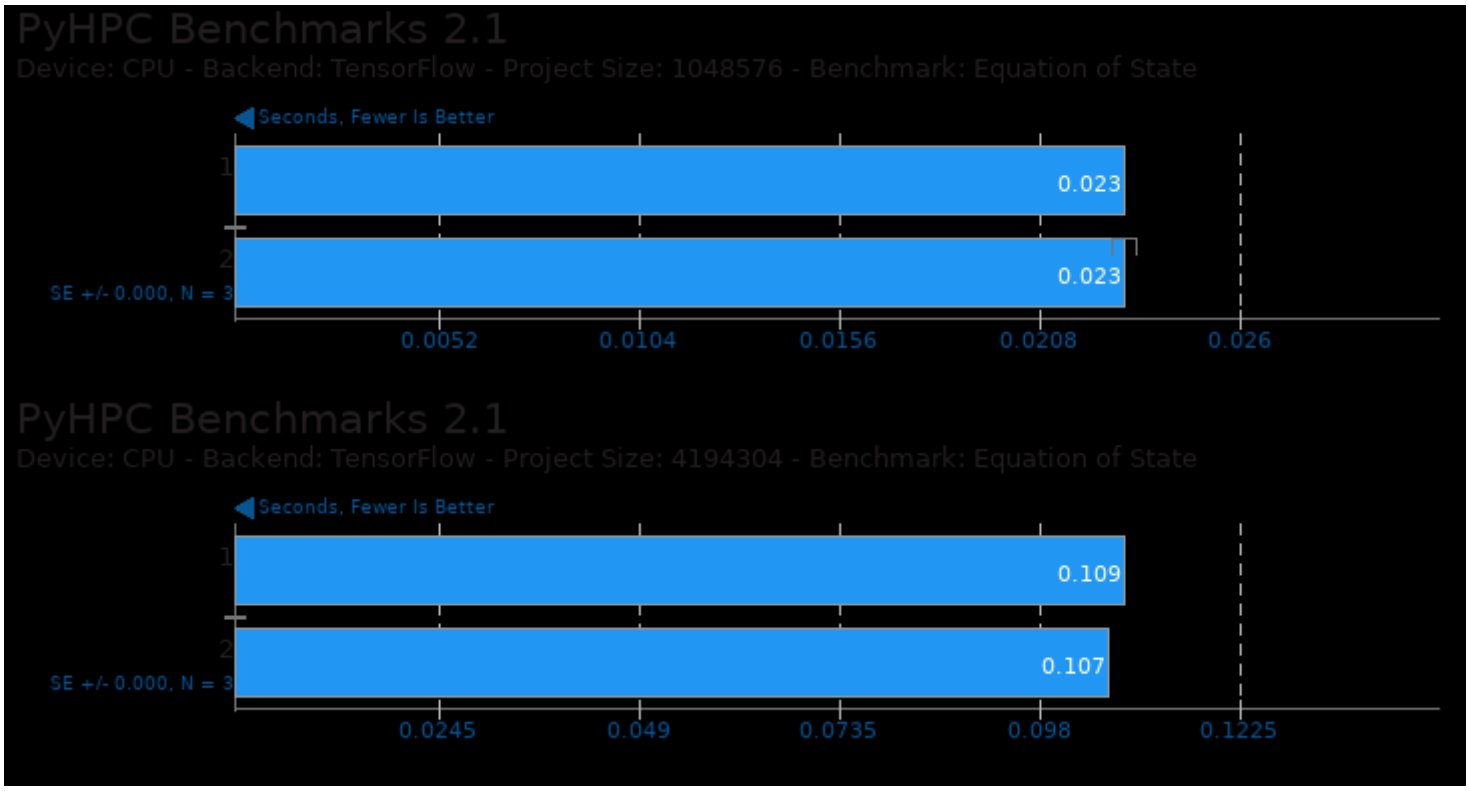

PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.061
2
0.062
SE +/- 0.000, N = 3
0.014
0.028
0.042
0.056
0.07
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.031
2
0.032
SE +/- 0.000, N = 3
0.0072
0.0144
0.0216
0.0288
0.036
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.092
2
0.094
SE +/- 0.000, N = 3
0.0212
0.0424
0.0636
0.0848
0.106
PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.004
2
0.004
SE +/- 0.000, N = 3
0.0009
0.0018
0.0027
0.0036
0.0045


PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.055
2
0.054
SE +/- 0.000, N = 3
0.0124
0.0248
0.0372
0.0496
0.062
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.068
2
0.068
SE +/- 0.000, N = 3
0.0153
0.0306
0.0459
0.0612
0.0765
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
0.293
2
0.297
SE +/- 0.000, N = 3
0.0668
0.1336
0.2004
0.2672
0.334
PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.274
2
0.270
SE +/- 0.000, N = 3
0.0617
0.1234
0.1851
0.2468
0.3085


PyHPC Benchmarks 2.1
Device: CPU - Backend: Theano - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1.302
1.284
SE +/- 0.006, N = 3
0.293
0.586
0.879
1.172
1.465
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
0.073
0.072
SE +/- 0.000, N = 3
0.0164
0.0328
0.0492
0.0656
0.082
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
0.307
0.302
SE +/- 0.002, N = 3
0.0691
0.1382
0.2073
0.2764
0.3455
PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
0.230
0.234
SE +/- 0.001, N = 3
0.0527
0.1054
0.1581
0.2108
0.2635


PyHPC Benchmarks 2.1
Device: CPU - Backend: Bohrium - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1.167
1.158
SE +/- 0.002, N = 3
0.2626
0.5252
0.7878
1.0504
1.313
PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
0.020
0.019
SE +/- 0.000, N = 15
0.0045
0.009
0.0135
0.018
0.0225
PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
0.273
0.272
SE +/- 0.001, N = 3
0.0614
0.1228
0.1842
0.2456
0.307
PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
0.073
0.076
SE +/- 0.001, N = 12
0.0171
0.0342
0.0513
0.0684
0.0855


PyHPC Benchmarks 2.1
Device: CPU - Backend: PyTorch - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
1
1.337
2
1.349
SE +/- 0.007, N = 3
0.3035
0.607
0.9105
1.214
1.5175
PyHPC Benchmarks 2.1
Device: CPU - Backend: TensorFlow - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.001
2
0.001
SE +/- 0.000, N = 3
0.0002
0.0004
0.0006
0.0008
0.001
PyHPC Benchmarks 2.1
Device: CPU - Backend: TensorFlow - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.002
2
0.002
SE +/- 0.000, N = 3
0.0005
0.001
0.0015
0.002
0.0025
PyHPC Benchmarks 2.1
Device: CPU - Backend: TensorFlow - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
1
0.005
2
0.005
SE +/- 0.000, N = 3
0.0011
0.0022
0.0033
0.0044
0.0055



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:46.