# 1 Experiment 2 of set Separable Convolutions (512 filters)

### 1.1 Device and Version Information

#### 1.1.1 CPU Information

cpuinfo_version 5, 0, 0  arch X86_64  bits 64  count 32  raw_arch_string x86_64  vendor_id GenuineIntel  brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz  hz_advertised 2.4000 GHz  hz_actual 2.4000 GHz  hz_actual_raw 240000000, 0  hz_actual_raw 240000000, 0  stepping 2  model 63  family 6  flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdrsep, rep_seod_, sdbg, sep, smep, smx, ss, see, sse2, sse4_1, sse4_2, sse5, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr	python_version	3.7.4.final.0 (64 bit)
bits 64  count 32  raw_arch_string x86_64  vendor_id GenuineIntel  brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz  hz_advertised 2.4000 GHz  hz_actual 2.4000 GHz  hz_actual_raw 2400000000, 0  stepping 2  model 63  family 6  flags  abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	cpuinfo_version	5, 0, 0
count 32 raw_arch_string x86_64 vendor_id GenuineIntel brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz hz_advertised 2.4000 GHz hz_actual 2.4000 GHz hz_advertised_raw 2400000000, 0 hz_actual_raw 2400000000, 0 stepping 2 model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	arch	X86_64
raw_arch_string x86_64  vendor_id GenuineIntel  brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz  hz_advertised 2.4000 GHz  hz_actual 2.4000 GHz  hz_advertised_raw 2400000000, 0  hz_actual_raw 2400000000, 0  stepping 2  model 63  family 6  flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, oxxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	bits	64
vendor_id GenuineIntel brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz hz_advertised 2.4000 GHz hz_actual 2.4000 GHz hz_actual_raw 2400000000, 0 hz_actual_raw 2400000000, 0 stepping 2 model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	count	32
brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz  hz_advertised 2.4000 GHz  hz_actual 2.4000 GHz  hz_advertised_raw 2400000000, 0  hz_actual_raw 2400000000, 0  stepping 2  model 63  family 6  flags abm, acpi, aperfimperf, apic, arat, arch_perfimon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	raw_arch_string	
hz_actual 2.4000 GHz hz_actual 2.4000 GHz hz_advertised_raw 2400000000, 0 hz_actual_raw 2400000000, 0 stepping 2 model 63 family 6 flags abm, acpi, aperfimperf, apic, arat, arch_perfimon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	vendor_id	
hz_actual 2.4000 GHz hz_advertised_raw 240000000, 0 hz_actual_raw 2400000000, 0 stepping 2 model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,		
hz_advertised_raw 2400000000, 0 hz_actual_raw 2400000000, 0 stepping 2 model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	_	
hz_actual_raw 2400000000, 0  stepping 2  model 63  family 6  flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, oxxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,	hz_actual	2.4000 GHz
model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,		l '
model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,		
family 6  flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,		
flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,		
avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,		
	flags	avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,
l3 cache size   20480 KB	l3 cache size	
l2 cache size 256 KB		
ll data cache size 32 KB		
11 instruction cache size 32 KB		
12 cache line size 6		
12 cache associativity 0x100	l2 cache associativity	0x100
extended model 3		3

#### 1.1.2 GPU Information

Num GPUs: 1

rum or os. r	
name	Tesla K40m
total_memory	11441 MiB
driver_version	410.78
cuda_version	10.0

#### 1.1.3 Carbon Estimation Information

Experiment Impact Tracker Version	0.1	
Compute Region	US-CA	
average gCO2eq/kWh	337.15411927944996	
Carbon Data Source	Live Data Fromhttp://www.caiso.com/outlook/SP/H	story/ <date>/c</date>
Assumed PUE	1.58	

## 1.2 Experiment Info

Experiment Start Time	1570713257.053442
Experiment Length (hours)	1.5110325202676984
Intel (CPU+DRAM, RAPL) Power Usage (kWh)	0.035454624348487104
NVIDIA (GPU) Power Usage (kWh)	0.23011517583597635
Total (Including PUE Mult.) Power (kWh)	0.41960028429145224
Estimated Carbon Impact (kgCO2eq)	0.14146981822434992
Final CPU-Hours (psutil estimate)	1.645652777777779
Final GPU-Hours (climate-impact-tracker estimate)	1.4934131129657118