

## 2. Supplementary Notes

### Machine specification

**OS:** Ubuntu 16.04.4 LTS x86\_64

#### **GPU (×2):**

CUDA Driver Version / Runtime Version 9.0 / 8.0  
CUDA Capability Major/Minor version number: 6.1  
Total amount of global memory: 12190 MBytes (12782075904 bytes)  
(28) Multiprocessors, (128) CUDA Cores/MP: 3584 CUDA Cores  
GPU Max Clock rate: 1531 MHz (1.53 GHz)  
Memory Clock rate: 5005 Mhz  
Memory Bus Width: 384-bit  
L2 Cache Size: 3145728 bytes  
Maximum Texture Dimension Size (x,y,z) 1D=(131072), 2D=(131072, 65536), 3D=(16384, 16384, 16384)  
Maximum Layered 1D Texture Size, (num) layers 1D=(32768), 2048 layers  
Maximum Layered 2D Texture Size, (num) layers 2D=(32768, 32768), 2048 layers  
Total amount of constant memory: 65536 bytes  
Total amount of shared memory per block: 49152 bytes  
Total number of registers available per block: 65536  
Warp size: 32  
Maximum number of threads per multiprocessor: 2048  
Maximum number of threads per block: 1024  
Max dimension size of a thread block (x,y,z): (1024, 1024, 64)  
Max dimension size of a grid size (x,y,z): (2147483647, 65535, 65535)  
Maximum memory pitch: 2147483647 bytes  
Texture alignment: 512 bytes  
Concurrent copy and kernel execution: Yes with 2 copy engine(s)  
Run time limit on kernels: No  
Integrated GPU sharing Host Memory: No  
Support host page-locked memory mapping: Yes  
Alignment requirement for Surfaces: Yes  
Device has ECC support: Disabled  
Device supports Unified Addressing (UVA): Yes  
Device PCI Domain ID / Bus ID / location ID: 0 / 2 / 0  
Compute Mode:  
< Default (multiple host threads can use ::cudaSetDevice() with device simultaneously) >

#### **CPU:**

Architecture: x86\_64  
CPU op-mode(s): 32-bit, 64-bit

Byte Order: Little Endian  
CPU(s): 20  
On-line CPU(s) list: 0-19  
Thread(s) per core: 1  
Core(s) per socket: 10  
Socket(s): 2  
NUMA node(s): 2  
Vendor ID: GenuineIntel  
CPU family: 6  
Model: 79  
Model name: Intel(R) Xeon(R) CPU E5-2640 v4 @ 2.40GHz  
Stepping: 1  
CPU MHz: 1200.093  
CPU max MHz: 3400.0000  
CPU min MHz: 1200.0000  
BogoMIPS: 4801.79  
Virtualization: VT-x  
L1d cache: 32K  
L1i cache: 32K  
L2 cache: 256K  
L3 cache: 25600K  
NUMA node0 CPU(s): 0-9  
NUMA node1 CPU(s): 10-19  
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36  
clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant\_tsc  
arch\_perfmon pebs bts rep\_good nopl xtopology nonstop\_tsc aperfmperf eagerfpu pni pclmulqdq  
dtes64 monitor ds\_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid dca sse4\_1 sse4\_2  
x2apic movbe popcnt tsc\_deadline\_timer aes xsave avx f16c rdrand lahf\_lm abm 3dnowprefetch  
epb invpcid\_single intel\_pt kaiser tpr\_shadow vnmi flexpriority ept vpid fsgsbase tsc\_adjust  
bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm rdseed adx smap xsaveopt cqm\_llc  
cqm\_occup\_llc cqm\_mbm\_total cqm\_mbm\_local ibpb ibrs stibp dtherm ida arat pln pts

**System memory:** DDR4-2400 256GB

**Data Storage:** Crucial MX300SSD 2TB ×2 (RAID 0)