







-  _____
-  _____
-  _____
-  _____



CPU/RAM/SSD

- CPU: Intel Xeon Platinum 8358 (32 Cores, 48MB Cache, 2.60 GHz, 11.2 GT/s UPI)
- RAM: 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 204.8 GB/s
- Storage: Huawei OceanStor Dorado 5500 V6 All-Flash Storage (NVMe over RoCE)
- Network: 4*25 Gigabit Ethernet



2*100Gb



100Mb/1Gb Ethernet



1/10/25/40/100Gb Ethernet



40/56/100/200Gb QDR/FDR/HDR InfiniBand, 100Gb Omni-Path Architecture



- CPU +
- CPU + !
 -
 - !
- SSUSP !
- <JOBID>
- fairshare !
- fairshare

brequeue



- 333
- CPU 701
- CPU 14360
- GPU 139
- GPU CUDA 1383552
- 73376 GB
- 2904 GB
- CPU GPU 896.232 TFLOPS (CPU: 736.972, GPU: 159.26)
- GPU 5561.752 TFLOPS



- CPU e52692v2ib e52680v3ib e5v3ib e52630v4 e52640v4 e52650v4 e52680v4ib e52682v4opa 5218 7702ib 5220r 6230r 5318h 6330ib 7k83 9654 9754 6458q
- CPU e74820v4 6140ib 5218q 9242opa
- CPU e52643tgb 6226rib
- 6338
- e7v4ib
- GPU e5v3k40ib e5v4p100ib 6148v100ib 62v100ib 83a100ib
- GPU 722080tiib 72rtxib 813080 723080 723090ib 814080 734090d 944090d 734090ib 75434090ib
- CPU cpu1



<https://table.nju.edu.cn/apps/custom/hpc-resources>

SSD




- / SSD /tmp /var/tmp
- /ssd SSD /ssd /tmp/ssd





e52643tgb

- 2.112 TFLOPS
- 100%
- 10*Dell PowerEdge 12G R620
- Hostname: r001-r010
- CPU: 2*Intel Xeon E5-2643 (4 Cores, 10MB Cache, 3.30 GHz, 8.00 GT/s QPI)
- RAM: 4 Channels, DDR3-1600 ECC RDIMM, Bandwidth: 102.4 GB/s
 - [r001-r003] 96 GB
 - [r004-r010] 128 GB `-R largemem`
- HDD: 600 GB 2.5in 10Krpm 6Gb/s SAS
- Network: 10 Gigabit Ethernet

e52692v2ib

-  16.896 TFLOPS
-  75%  25%
- 40*Inspur NX5440
- Hostname: i01n01-i01n20 i02n01-i02n20
- CPU: 2*Intel Xeon E5-2692 v2 (12 Cores, 30MB Cache, 2.20 GHz, 8 GT/s QPI)
- RAM: 64 GB (8x8GB), 4 Channels, DDR3-1866 ECC RDIMM, Bandwidth: 119.4 GB/s
- HDD: 600 GB 2.5in 10Krpm 6Gb/s SAS
- Network: Gigabit Ethernet, 40 Gbit/s QDR InfiniBand



e52680v3ib

-  24.96 TFLOPS
-  100%
- 26*HP BladeSystem ProLiant BL460c Gen9
- Hostname: s03n01-s03n13 s04n01-s04n13
- CPU: 2*Intel Xeon E5-2680 v3 (12 Cores, 30MB Cache, 2.50 GHz, 9.6 GT/s QPI)
- RAM: 128 GB ([s03n01-s03n13 s04n01-s04n02] 8x16GB | [s04n03-s04n13] 16x8GB), 4 Channels, DDR4-2133 ECC RDIMM, Bandwidth: 136 GB/s
- HDD: 300 GB 2.5in 10Krpm 6Gb/s SAS
- Network: Gigabit Ethernet, 56 Gbit/s FDR InfiniBand

e5v3ib

-  72 TFLOPS
-  100%
- 70*Lenovo Flex System x240 M5 5*Lenovo System x3650 M5
- Hostname: f01n01-f01n14 f02n01-f02n14 f03n01-f03n14 f04n01-f04n14 f05n01-f05n14 x013-x017 x013-x017
- CPU: 2*Intel Xeon E5-2680 v3 (12 Cores, 30MB Cache, 2.50 GHz, 9.6 GT/s QPI)
- RAM: 4 Channels, [f01n01-f05n14] DDR4-2133 ECC RDIMM, Bandwidth: 136 GB/s | [x013-x017] DDR4-1866 ECC RDIMM, Bandwidth: 119.4 GB/s
 - [f01n01-f05n04] 128 GB (8x16GB)
 - [f05n05-f05n14] 256 GB (8x32GB),  -R mem256g  -R largemem 
 - [x013-x017] 384 GB (24x32GB),  -R mem384g  -R largemem 
- SSD: 2.5in SATA 6Gb/s
 - [f01n01-f05n14] Samsung Enterprise SSD PM863, 32-layer 3D TLC, 120GB 170TBW
 - [x013-x017] Samsung SSD 850 PRO, 32-layer 3D TLC, 512GB
- Network: Gigabit Ethernet, 56 Gbit/s FDR InfiniBand

e5v3k40ib

-  3.82 TFLOPS
-  100%
- 1*Lenovo System x3650 M5
- Hostname: x001
- CPU: 2*Intel Xeon E5-2680 v3 (12 Cores, 30MB Cache, 2.50 GHz, 9.6 GT/s QPI)

- RAM: 128 GB (8x16GB), 4 Channels, DDR4-2133 ECC RDIMM, Bandwidth: 136 GB/s
- GPU: 2*NVIDIA Tesla K40 (2880 Cores 875MHz, 12GB 384-bit GDDR5 3.0GHz 288GB/s, PCIe3.0 x16)
- HDD: 300 GB 2.5in 10Krpm 6Gb/s SAS
- Network: 10 Gigabit Ethernet, 56 Gbit/s FDR InfiniBand

e52630v4

- ██████████ 1.408 TFLOPS
- ████████ 100%██████
- 2*Inspur NX5460M4
- Hostname: i04n01-i04n02
- CPU: 2*Intel Xeon E5-2630 v4 (10 Cores, 25MB Cache, 2.20 GHz, 8 GT/s QPI)
- RAM: 64 GB (4x16GB), 2 Channels, DDR4-2133 ECC RDIMM, Bandwidth: 68.3 GB/s
- HDD: 2*300 GB 2.5in 10Krpm 12Gb/s SAS RAID1
- Network: 10 Gigabit Ethernet

e52640v4

- ██████████ 0.768 TFLOPS
- ████████ 100%
- 1*Inspur NF5280M4
- Hostname: n001
- CPU: 2*Intel Xeon E5-2640 v4 (10 Cores, 25MB Cache, 2.40 GHz, 8 GT/s QPI)
- RAM: 128 GB (8x16GB), 4 Channels, DDR4-2133 ECC RDIMM, Bandwidth: 136.6 GB/s
- HDD: 2*600 GB 2.5in 10Krpm 12Gb/s SAS RAID1
- Network: Gigabit Ethernet

e52650v4


- ██████████ 2.5344 TFLOPS
- ████████ 100%
- 3*Inspur NF5270M4
- Hostname: n003-n005
- CPU: 2*Intel Xeon E5-2650 v4 (12 Cores, 30MB Cache, 2.20 GHz, 9.6 GT/s QPI)
- RAM: 128 GB (8x16GB), 4 Channels, DDR4-2400 ECC RDIMM, Bandwidth: 153.6 GB/s
- HDD: [n003-n004] 4*300 GB 2.5in 10Krpm 12Gb/s SAS RAID5 | [n005] 3*300 GB 2.5in 10Krpm 12Gb/s SAS RAID5
- Network: Gigabit Ethernet

e52680v4ib



- ██████████ 20.4288 TFLOPS
- ████████ 84.21%███ 15.79%
- 19*HPE BladeSystem ProLiant BL460c Gen9
- Hostname: s04n14-s04n16 s05n01-s05n16

- CPU: 2*Intel Xeon E5-2680 v4 (14 Cores, 35MB Cache, 2.40 GHz, 9.6 GT/s QPI)
- RAM: 128 GB (8x16GB), 4 Channels, DDR4-2400 ECC RDIMM, Bandwidth: 153.6 GB/s
- SSD: Samsung Enterprise SSD PM863, 32-layer 3D TLC, 120GB 170TBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet, 56 Gbit/s FDR InfiniBand



e52682v4opa

-  25.6 TFLOPS
-  100%
- 20*Inspur NX5440M4
- Hostname: i03n01-i03n20
- CPU: 2*Intel Xeon E5-2682 v4 (16 Cores, 40MB Cache, 2.50 GHz, 9.6 GT/s QPI)
- RAM: 64 GB (8x8GB), 4 Channels, DDR4-2400 ECC RDIMM, Bandwidth: 153.6 GB/s
- SSD: Intel SSD DC S3500, 20nm MLC, 240GB 140TBW
- SSD: 2.5in SATA 6Gb/s, [i03n01-i03n10] Samsung Enterprise SSD PM863, 32-layer 3D TLC, 960GB 1400TBW | [i03n11-i03n20] Intel SSD DC S3610, 20nm MLC, 800GB 5.3PBW
 - SSD mounted at /ssd & /tmp/ssd
- Network: Gigabit Ethernet, 100 Gbit/s Omni-Path Architecture



e74820v4

-  1.28 TFLOPS
-  100%
- 1*Dell PowerEdge R930
- Hostname: r012
- CPU: 4*Intel Xeon E7-4820 v4 (10 Cores, 25MB Cache, 2.00 GHz, 6.4 GT/s QPI)
- RAM: 256 GB (16x16GB), 4 Channels, DDR4-1333 ECC RDIMM
- HDD: 2*600 GB 2.5in 15Krpm 12Gb/s SAS RAID1
- Network: Gigabit Ethernet

e7v4ib

-  2.1504 TFLOPS
-  100%
- 1*Dell PowerEdge R930
- Hostname: r011
- CPU: 4*Intel Xeon E7-4850 v4 (16 Cores, 40MB Cache, 2.10 GHz, 8 GT/s QPI)
- RAM: 1024 GB (32x32GB), 4 Channels, DDR4-1333 ECC RDIMM
- SSD: 2*Intel SSD DC S3610, 20nm MLC, 200GB 1.1PBW, 2.5in SATA 6Gb/s RAID1
- Network: 10 Gigabit Ethernet, 56 Gbit/s FDR InfiniBand

e5v4p100ib



-  10.296 TFLOPS
-  100%
- 1*Lenovo System x3650 M5

- Hostname: x002
- CPU: 2*Intel Xeon E5-2660 v4 (14 Cores, 35MB Cache, 2.00 GHz, 9.6 GT/s QPI)
- RAM: 128 GB (8x16GB), 4 Channels, DDR4-2400 ECC RDIMM, Bandwidth: 153.6 GB/s
- GPU: 2*NVIDIA Tesla P100 PCIe 16GB (3584 Cores 1328MHz, 16GB 715MHz 4096-bit HBM2 732 GB/s, PCIe3.0 x16)
- HDD: 300 GB 2.5in 10Krpm 6Gb/s SAS
- Network: Gigabit Ethernet, 56 Gbit/s FDR InfiniBand






6140ib

-  84.7872 TFLOPS
-  100%
- 16*H3C B7800 G3
- Hostname: b01n01-b01n08 b02n01-b02n08
- CPU: 4*Intel Xeon Gold 6140 (18 Cores, 24.75MB Cache, 2.30 GHz)
- RAM: 384 GB (24x16GB), 6 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 511.2 GB/s
- SSD: Micron 5100, TLC, 240GB, M.2 2280, SATA 6Gb/s
- Network: 10 Gigabit Ethernet, 100 Gbit/s EDR InfiniBand

6148v100ib

-  10.072 TFLOPS
-  100%
- 1*Lenovo ThinkSystem SR650
- Hostname: x003
- CPU: 2*Intel Xeon Gold 6148 (20 Cores, 27.5MB Cache, 2.40 GHz)
- RAM: 192 GB (12x16GB), 6 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 255.6 GB/s
- GPU: NVIDIA Tesla V100 PCIe 16GB (5120 CUDA Cores 1380MHz, 16GB HBM2 877MHz 4096-bit 900GB/s, PCIe3.0 x16)
- SSD: LITEON, 128GB, M.2 2280, SATA 6Gb/s
- Network: Gigabit Ethernet, 56 Gbit/s FDR InfiniBand

5218

-  1.1776 TFLOPS
-  CPU/ Intel 
- 1*Intel S2600WFT
- Hostname: o003
- CPU: 2*Intel Xeon Gold 5218 (16 Cores, 22MB Cache, 2.30 GHz)
- RAM: 192 GB (12x16GB), 6 Channels, DDR4-2666 ECC RDIMM
- SSD: Intel SSD DC S3500, 20nm MLC, 275TBW 480GB, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet

5218q

-  2.3552 TFLOPS

- 100%
- 1*Inspur NF8480M5
- Hostname: n032
- CPU: 4*Intel Xeon Gold 5218 (16 Cores, 22MB Cache, 2.30 GHz)
- RAM: 256 GB (8x32GB), 4 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 170.7 GB/s
- HDD: 2*600 GB 2.5in 10Krpm 12Gb/s SAS RAID1
- Network: Gigabit Ethernet

62v100ib

- 65.6 TFLOPS
- 100%
- 1*Inspur NF5468M5-S
- Hostname: n002
- CPU: 2*Intel Xeon Gold 6248 (20 Cores, 27.5MB Cache, 2.50 GHz)
- RAM: 768 GB (24x32GB), 6 Channels, DDR4-2933 ECC RDIMM, Bandwidth: 281.6 GB/s
- GPU: 8*NVIDIA Tesla V100 SXM2 32GB (5120 CUDA Cores 1530MHz, 32GB HBM2 877MHz 4096-bit 900GB/s, NVLink 300GB/s, PCIe3.0 x16)
- SSD: 2*Samsung Enterprise SSD PM883, TLC 3D NAND, 480GB 683TBW, 2.5in SATA 6Gb/s, RAID1
- SSD: 2*Intel SSD DC P4510, 64-Layer TLC 3D NAND, 2TB 2.61PBW, U.2 15mm, PCIe3.1 x4 NVMe, RAID0
 - SSD mounted at /ssd & /tmp/ssd
- Network: 10 Gigabit Ethernet, 100 Gbit/s EDR InfiniBand

9242opa

- 141.312 TFLOPS
- 100%
- 20*Intel S9248WK2HAC
- Hostname: s001-s020
- CPU: 2*Intel Xeon Platinum 9242 (48 Cores, 71.5MB Cache, 2.30 GHz)
- RAM: 384 GB (24x16GB), 12 Channels, DDR4-2933 ECC RDIMM, Bandwidth: 563.2 GB/s
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 480GB 1.2PBW, M.2 2280, SATA 6Gb/s
- Network: Gigabit Ethernet, 100 Gbit/s Omni-Path Architecture

7702ib




- 57.344 TFLOPS
- 100%
- 14*Asus RS720A-E9-RS24V2
- Hostname: a001-a014
- CPU: 2*AMD EPYC 7702 (64 Cores, 256MB Cache, 2.0 GHz)
- RAM: 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
 - [a001-a010] 256 GB (16x16GB)
 - [a011-a014] 512 GB (32x16GB), -R largemem

- SSD: Samsung SSD 970 EVO Plus, V-NAND 3-bit MLC, 250GB 150TBW, M.2 2280, PCIe3.0 x4 NVMe 1.3
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand



722080tiib

- CPU  3.072 TFLOPS
- GPU  215.168 TFLOPS
-  100%
- 4*Gigabyte G242-Z10
- Hostname: g001-g004
- CPU: 1*AMD EPYC 7302 (16 Cores, 128MB Cache, 3.0 GHz)
- GPU: 4*NVIDIA GeForce RTX 2080 Ti 11GB (4352 CUDA Cores 1545MHz, 11GB GDDR6 7000MHz 352-bit 616 GB/s, PCIe3.0 x16)
- RAM: 256 GB (8x32GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 204.8 GB/s
- SSD: Intel SSD DC S4600, 3D NAND TLC, 240GB 1.40PBW, 2.5in SATA 6Gb/s
- SSD: Intel SSD DC P4510, 64-Layer TLC 3D NAND, 2TB 2.61PBW, U.2 15mm, PCIe3.1 x4 NVMe
 - SSD mounted at /ssd & /tmp/ssd
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand

72rtxib



- CPU  2.304 TFLOPS
- GPU  195.744 TFLOPS
-  100%
- 3*Gigabyte G242-Z10
- Hostname: g005-g007
- CPU: 1*AMD EPYC 7302 (16 Cores, 128MB Cache, 3.0 GHz)
- GPU: 4*NVIDIA TITAN RTX 24GB (4608 CUDA Cores 1770MHz, 24GB GDDR6 7000MHz 384-bit 672 GB/s, PCIe3.0 x16)
- RAM: 256 GB (8x32GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 204.8 GB/s
- SSD: Intel SSD DC S4600, 3D NAND TLC, 240GB 1.40PBW, 2.5in SATA 6Gb/s
- SSD: Intel SSD DC P4510, 64-Layer TLC 3D NAND, 2TB 2.61PBW, U.2 15mm, PCIe3.1 x4 NVMe
 - SSD mounted at /ssd & /tmp/ssd
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand

5220r



-  5.0688 TFLOPS
-  100%
- 3*Inspur NF5280M5
- Hostname: n006-n008
- CPU: 2*Intel Xeon Gold 5220R (24 Cores, 35.75MB Cache, 2.20 GHz)
- RAM: 192 GB (6x32GB), 3 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 127.8 GB/s

- SSD: 2*Intel SSD DC S4500, 3D NAND TLC, 480GB 0.90PBW, 2.5in SATA 6Gb/s, RAID1
- Network: Gigabit Ethernet



6226rib

-  65.3312 TFLOPS
-  100%
- 22*Huawei FusionServer Pro 1288H V5
- Hostname: f001-f022
- CPU: 2*Intel Xeon Gold 6226R (16 Cores, 22MB Cache, 2.90 GHz)
- RAM: 192 GB (12x16GB), 6 Channels, DDR4-2933 ECC RDIMM, Bandwidth: 281.6 GB/s
- SSD: Huawei ES3610C V5, 3D TLC, 1.6TB 8.76PBW, HHHL, PCIe3.0 x4 NVMe 1.3
- Network: Gigabit Ethernet, 100 Gbit/s EDR InfiniBand


6230r

-  10.4832 TFLOPS
-  100%
- 3*Inspur NF5280M5
- Hostname: n009-n011
- CPU: 2*Intel Xeon Gold 6230R (26 Cores, 35.75MB Cache, 2.10 GHz)
- RAM: 192 GB (6x32GB), 3 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 127.8 GB/s
- SSD: 2*Samsung PM883, TLC 3D NAND, 480GB 683TBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet




5318h

-  5.76 TFLOPS
-  100%
- 1*Inspur NF8480M6
- Hostname: n035
- CPU: 4*Intel Xeon Gold 5318H (18 Cores, 24.75MB Cache, 2.50 GHz)
- RAM: 512 GB (16x32GB), 4 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 170.7 GB/s
- HDD: 2*Samsung PM893, V-NAND TLC, 960GB 1752TBW, 2.5in SATA 6Gb/s, RAID1
- Network: Gigabit Ethernet



6330ib

-  57.344 TFLOPS
-  100%
- 16*Inspur NF5180M6
- Hostname: n016-n031
- CPU: 2*Intel Xeon Gold 6330 (28 Cores, 42MB Cache, 2.00 GHz)
- RAM: 256 GB (16x16GB), 8 Channels, DDR4-2933 ECC RDIMM, Bandwidth: 375.5 GB/s
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 240GB 0.9PBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand



6338

-  16.384 TFLOPS
-  100%
- 4*Inspur NF5180M6
- Hostname: n012-n015
- CPU: 2*Intel Xeon Gold 6338 (32 Cores, 48MB Cache, 2.00 GHz)
- RAM: 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
 - [n012 n013] 1024 GB (32x32GB)
 - [n014 n015] 2048 GB (32x64GB), -R largemem 
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 240GB 0.9PBW, 2.5in SATA 6Gb/s
- Network: 10 Gigabit Ethernet

7k83


-  15.6672 TFLOPS
-  100%
- 2*Gigabyte R182-Z90 1*Asus RS700A-E11-RS4U
- Hostname: g008-g009 a016
- CPU: 2*AMD EPYC 7K83 (64 Cores, 256MB Cache, 2.55 GHz)
- RAM: 256 GB (16x16GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 480GB 1.2PBW, 2.5in SATA 6Gb/s
- Network: 10 Gigabit Ethernet

83a100ib




-  82.9248 TFLOPS
-  100%
- 1*Supermicro SYS-420GP-TNAR+ (Powerleader PR4908WV)
- Hostname: m001
- CPU: 2*Intel Xeon Platinum 8358 (32 Cores, 48MB Cache, 2.60 GHz)
- RAM: 512 GB (16x32GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
- GPU: 8*NVIDIA A100 SXM4 40GB (6912 CUDA Cores 1410MHz, 40GB HBM2 1215MHz 5120-bit 1555GB/s, NVLink 600GB/s, PCIe4.0 x16)
- SSD: Samsung 983 DCT, V-NAND 3-bit MLC, 960GB 1.366PBW, M.2 22110, PCIe3.0 x4 NVMe 1.2b
- SSD: 2*Intel SSD D7-P5520, 144-Layer TLC 3D NAND, 3.84TB 7.0PBW, U.2 15mm, PCIe4.0 x4, NVMe 1.4, RAID0
 - SSD mounted at /ssd & /tmp/ssd
- Network: 10 Gigabit Ethernet, 200 Gbit/s HDR InfiniBand

813080




- CPU  7.9872 TFLOPS
- GPU  476.32 TFLOPS

-  100%
- 1*Supermicro SYS-4029GP-TRT 1*Asus ESC8000 G4
- Hostname: m004 a018
- CPU: [m004] 2*Xeon Platinum 8163 (24 Cores, 33MB Cache, 2.50 GHz) | [a018] 2*Xeon Platinum 8168 (24 Cores, 33MB Cache, 2.70 GHz)
- RAM: [m004] 64 GB (4x16GB), 2 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 85.3 GB/s | [a018] 128 GB (8x16GB), 4 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 170.7 GB/s
- GPU: 8*NVIDIA GeForce RTX 3080 10GB (8704 CUDA Cores 2100MHz, 10GB GDDR6X 9501MHz 320-bit 760.3 GB/s, PCIe3.0 x16)
- SSD: [m004] Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 480GB 1.2PBW, 2.5in SATA 6Gb/s | [a018] Intel SSD D3-S4610, 64-Layer TLC 3D NAND, 240GB 1.4PBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet

723080

- CPU 4.608 TFLOPS
- GPU 238.16 TFLOPS
-  100%
- 1*Asus ESC8000A-E11
- Hostname: a015
- CPU: 2*AMD EPYC 7B12 (64 Cores, 256MB Cache, 2.25 GHz)
- RAM: 128 GB (16x8GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
- GPU: 8*NVIDIA GeForce RTX 3080 10GB (8704 CUDA Cores 2100MHz, 10GB GDDR6X 9501MHz 320-bit 760.3 GB/s, PCIe4.0 x16)
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 240GB 0.9PBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet

723090ib

- CPU 4.3008 TFLOPS
- GPU 569.28 TFLOPS
-  100%
- 2*Supermicro AS -4124GS-TNR (Roycom)
- Hostname: m002-m003
- CPU: 2*AMD EPYC 7402 (24 Cores, 128MB Cache, 2.8 GHz)
- RAM: 512 GB (16x32GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
- GPU: 8*NVIDIA GeForce RTX 3090 24GB (10496 CUDA Cores 2100MHz, 24GB GDDR6X 9751MHz 384-bit 936.2 GB/s, PCIe4.0 x16)
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 480GB 1.2PBW, 2.5in SATA 6Gb/s
- SSD: 2*Intel SSD D7-P5520, 144-Layer TLC 3D NAND, 3.84TB 7.0PBW, U.2 15mm, PCIe4.0 x4, NVMe 1.4, RAID0
 - SSD mounted at /ssd & /tmp/ssd
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand

814080

- CPU██████████ 4.1472 TFLOPS
- GPU██████████ 194.960 TFLOPS
- ██████ 100%
- 1*Supermicro X11DPG-QT
- Hostname: m009
- CPU: 2*Xeon Platinum 8168 (24 Cores, 33MB Cache, 2.70 GHz)
- RAM: 64 GB (4x16GB), 2 Channels, DDR4-2666 ECC RDIMM, Bandwidth: 85.3 GB/s
- GPU: 4*NVIDIA GeForce RTX 4080 16GB (9728 CUDA Cores 3105MHz, 16GB GDDR6X 11201MHz 256-bit 716.8 GB/s, PCIe4.0 x16)
- SSD: Samsung PM883, TLC 3D NAND, 240GB 341TBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet

734090d

- CPU██████████ 5.7344 TFLOPS
- GPU██████████ 588.32 TFLOPS
- ██████ 100%
- 1*Inspur NF5468A5
- Hostname: n034
- CPU: 2*AMD EPYC 7543 (32 Cores, 256MB Cache, 2.8 GHz)
- RAM: 768 GB (24x32GB) DDR4-2933 ECC RDIMM
- GPU: 8*NVIDIA GeForce RTX 4090 D 24GB (14592 CUDA Cores 3105MHz, 24GB GDDR6X 10501MHz 384-bit 1008 GB/s, PCIe4.0 x16)
- SSD: Intel SSD D5-P5530, 128-Layer TLC NAND, 960GB 1.7PBW, U.2 15mm, PCIe4.0 x4, NVMe 1.3c
- SSD: 2*SAMSUNG PM983a, 7.68TB 10.9PBW, U.2 7mm, PCIe3.0 x4, NVMe 1.3c
 - SSD mounted at /ssd1 & /ssd2
- Network: Gigabit Ethernet

944090d

- CPU██████████ 7.3728 TFLOPS
- GPU██████████ 441.24 TFLOPS
- ██████ 100%
- 1*Inspur NF5468A7
- Hostname: n033
- CPU: 2*AMD EPYC 9654 (96 Cores, 384MB Cache, 2.4 GHz)
- RAM: 768 GB (24x32GB) 12 Channels, DDR5-4800 ECC RDIMM, Bandwidth: 921.6 GB/s
- GPU: 6*NVIDIA GeForce RTX 4090 D 24GB (14592 CUDA Cores 3105MHz, 24GB GDDR6X 10501MHz 384-bit 1008 GB/s, PCIe4.0 x16)
- SSD: SSD 960GB
- SSD: 2*SAMSUNG PM983a, 7.68TB 10.9PBW, U.2 7mm, PCIe3.0 x4, NVMe 1.3c
 - SSD mounted at /ssd1 & /ssd2

- Network: Gigabit Ethernet

734090ib

- CPU██████████ 5.7344 TFLOPS
- GPU██████████ 1321.28 TFLOPS
- ████████ 100%
- 2*Supermicro AS -4124GS-TNR (Wuzhou S748E4)
- Hostname: m005-m006
- CPU: 2*AMD EPYC 7543 (32 Cores, 256MB Cache, 2.8 GHz)
- RAM: 512 GB (16x32GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
- GPU: 8*NVIDIA GeForce RTX 4090 24GB (16384 CUDA Cores 3105MHz, 24GB GDDR6X 10501MHz 384-bit 1008 GB/s, PCIe4.0 x16)
- SSD: Samsung PM883, TLC 3D NAND, 480GB 683TBW, 2.5in SATA 6Gb/s
- SSD: 2*Intel SSD D7-P5520, 144-Layer TLC 3D NAND, 3.84TB 7.0PBW, U.2 15mm, PCIe4.0 x4, NVMe 1.4, RAID0
 - SSD mounted at /ssd & /tmp/ssd
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand



75434090ib

- CPU██████████ 5.7344 TFLOPS
- GPU██████████ 1321.28 TFLOPS
- ████████ 100%
- 2*Supermicro AS -4124GS-TNR (Wuzhou S748E4 | Roycom)
- Hostname: m007-m008
- CPU: 2*AMD EPYC 7543 (32 Cores, 256MB Cache, 2.8 GHz)
- RAM: 512 GB (16x32GB), 8 Channels, DDR4-3200 ECC RDIMM, Bandwidth: 409.6 GB/s
- GPU: 8*NVIDIA GeForce RTX 4090 24GB (16384 CUDA Cores 3105MHz, 24GB GDDR6X 10501MHz 384-bit 1008 GB/s, PCIe4.0 x16)
- SSD: Samsung PM883, TLC 3D NAND, 480GB 683TBW, 2.5in SATA 6Gb/s
- Network: Gigabit Ethernet, 100 Gbit/s HDR100 InfiniBand



9654

- ██████████ 7.3728 TFLOPS
- ████████ 100%
- 1*Asus RS720A-E12-RS12
- Hostname: a017
- CPU: 2*AMD EPYC 9654 (96 Cores, 384MB Cache, 2.4 GHz)
- RAM: 384 GB (24x16GB), 12 Channels, DDR5-4800 ECC RDIMM, Bandwidth: 921.6 GB/s
- SSD: Intel SSD D3-S4510, 64-Layer TLC 3D NAND, 480GB 1.2PBW, 2.5in SATA 6Gb/s
- Network: 10 Gigabit Ethernet

9754

-  9.216 TFLOPS
-  100%
- 1*Inventec K885G6
- Hostname: v001
- CPU: 2*AMD EPYC 9754 (128 Cores, 256MB Cache, 2.25 GHz)
- RAM: 384 GB (24x16GB), 12 Channels, DDR5-4800 ECC RDIMM, Bandwidth: 921.6 GB/s
- SSD: Intel SSD D5-P5530, 128-Layer TLC NAND, 960GB 1.7PBW, U.2 15mm, PCIe4.0 x4, NVMe 1.3c
- Network: 1 Gigabit Ethernet

6458q

-  25.3952 TFLOPS
-  100%
- 4*Nettrix R620 G50
- Hostname: u001-u004
- CPU: 2*Intel Xeon Gold 6458Q (32 Cores, 60MB Cache, 3.10 GHz)
- RAM: 1024 GB (16x64GB), 8 Channels, DDR5-4800 ECC RDIMM, Bandwidth: 614.4 GB/s
- SSD: Samsung PM883, TLC 3D NAND, 480GB 683TBW, 2.5in SATA 6Gb/s, RAID1
- Network: 10 Gigabit Ethernet

cpu1

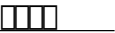
- ≤24 cores CPU e5v3ib 6140ib 7702ib 6330ib



-  2.8 PiB



-  bbfs
-  fsa  fs04  fs08  fs09  fs10  fs12  fs13  fs14  fs00
-  /archive





<https://table.nju.edu.cn/dtable/view-external-links/custom/hpc-storage/>




Tier 0











/bbfs





 NVMe SSD Burst Buffer

-  bbfs
-  100%
-  117 TiB
- IO 4*HPE ProLiant DL380 Gen10: bb01 bb02 bb03 bb04






- CPU: 2*Intel Xeon Gold 5122 (2 Cores, 16.5MB Cache, 3.60 GHz)
- RAM: 192 GB (12x16GB), 6 Channels, DDR4-2666 ECC RDIMM
- Network: 2*25 Gigabit Ethernet, 100 Gbit/s EDR InfiniBand, 100 Gbit/s Omni-Path
- SSD: 8*Intel SSD DC P4510, 64-Layer TLC 3D NAND, 4TB 6.3PBW, 2.5in U.2 15mm, PCIe 3.1 x4 NVMe
- 


/bbfs/fs*/

 /fs*/ /bbfs/fs*/  /fs*/  /bbfs/fs*/
 /fs*/  /bbfs/fs*/  /fs*/


 /fsa/home/yaoge/in

 /bbfs/fsa/home/yaoge/in SSD
 /bbfs/fsa/home/yaoge/out SSD
 /fsa/home/yaoge/out 

/bbfs/scratch/




 30 atime
 checkpoint .tmp  .temp 










 Check Point
 /bbfs/scratch/yaoge
 SSD

Tier 1






 /.snapshot

 /fsa /fsa/.snapshots /fsa/.snapshots/20220804-1800 2022 8 4 18 0


/fsa

- ██████████ 100%
- █████ 361 TiB
- █████ 0██████████ 7██████████ 2█
- IO███ 2*HP ProLiant DL380 Gen9: io01 io02
- ███ 2*10 Gigabit Ethernet, 56 Gbit/s FDR InfiniBand
- ███ DDN SFA7700X(██████████) 32GB ██████████
- ███ Data: 10TB 3.5-inch 7.2Krpm 12Gb/s SAS██ 10██████ RAID6█ 5█ RAID6█
Metadata: Toshiba Enterprise SSD PX02SMU040 MLC 10DWPD 400GB 2.5-inch 12Gb/s SAS
█ 10██████ RAID6█

/fs04

- ████████ 100%
- █████ 14 TiB
- IO█████ Dell PowerEdge 12G R720xd: io08
- ███ 2*10 Gigabit Ethernet
- RAID██ Dell PERC H710P Mini (LSI SAS2208 ROC), 1GB cache with Intelligent Battery Backup Unit
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS██ 5██████ RAID5█ 4█ RAID5█ 2██████

/fs08

- ██████ 100%
- █████ 14 TiB
- █████ 0██████████ 3█
- IO███ 2*Inspur NF5270M3: io10 io11
- ███ 2*1 Gigabit Ethernet, 40 Gbit/s QDR InfiniBand
- ███ Inspur AS500H (NetApp E2600)(██████████) 4GB ██████████
Write caching with mirroring, High Performance Tier
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS██ 5██████ RAID5█ 4█ RAID5█ 2██████

/fs09

- ██████ 100%
- █████ 24 TiB
- █████ 0██████████ 7██████████ 2█
- IO███ 2*Inspur NF5270M3: io10 io11
- ███ 2*1 Gigabit Ethernet, 40 Gbit/s QDR InfiniBand
- ███ Inspur AS500H (NetApp E2600)(██████████) 4GB ██████████
Write caching with mirroring, High Performance Tier
- ███ 3TByte 3.5-inch 7.2Krpm 6Gb/s NL-SAS█ 12██████ Disk Pool███ 1██████████
2█ Virtual Disk

/fs10

- ████████ 100%
- █████ 9.9 TiB
- IO████ Inspur NF5270M3: io12
- ███ 2*1 Gigabit Ethernet, 40 Gbit/s QDR InfiniBand
- RAID██ LSI MegaRAID SAS 9271-8i (LSI SAS2208 ROC), 1GB██████████
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS██ 5██████ RAID5█ 3█ RAID5█ 1██████

/fs12

- ████████ 100%
- █████ 14 TiB
- IO████ 2*HP ProLiant DL380 Gen9: io01 io02
- ███ 2*10 Gigabit Ethernet, 56 Gbit/s FDR InfiniBand
- ███ HP MSA 2040 SAN██████████ 4GB ██████████
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS██ 5██████ RAID5█ 4█ RAID5█ 3██████

/fs13

- ████████ 100%
- █████ 30 TiB
- IO████ 2*HP ProLiant DL380 Gen9: io01 io02
- ███ 2*10 Gigabit Ethernet, 56 Gbit/s FDR InfiniBand
- ███ HP MSA 2040 SAN██████████ 4GB ██████████
- ███ 4TByte 3.5-inch 7.2Krpm 6Gb/s SAS██ 6██████ RAID6█ 2█ RAID6█ 1████

/fs14

- ████████ 100%
- █████ 262 TiB
- IO████ Dell PowerEdge R730: io13
- ███ 2*10 Gigabit Ethernet
- RAID██ Dell PERC H730P Mini (LSI SAS3108 ROC), 2GB NV cache with Intelligent Battery Backup Unit
- ███ 8TByte 3.5-inch 7.2Krpm 12Gb/s SAS█ 6██████ RAID6
- RAID██ Dell PERC H830 (LSI SAS3108 ROC), 2GB NV cache with Intelligent Battery Backup Unit
- JBOD█ 8TByte 3.5-inch 7.2Krpm 12Gb/s SAS█ 6██████ RAID6█ 8█ RAID6



/fs00

- ████████ 100%
- █████ 3.3 TB
- █████ 0██████████ 7██████████ 12█
- IO███ HP ProLiant DL380 Gen9: io01 io02
- ███ 2*10 Gigabit Ethernet, 56 Gbit/s FDR InfiniBand
- ███ HP MSA 2040 SAN██████████ 4GB ██████████
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS█ 2█████ RAID1█ 2█ RAID1█ 1█████
- IO███ Inspur NF5270M3: io10 io11
- ███ 2*1 Gigabit Ethernet, 40 Gbit/s QDR InfiniBand
- ███ Inspur AS500H (NetApp E2600)██████████ 4GB ██████████
Write caching with mirroring, High Performance Tier
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS█ 2█████ RAID1█ 2█████
- IO██████ Inspur NF5270M3: io12
- ███ 2*1 Gigabit Ethernet, 40 Gbit/s QDR InfiniBand
- RAID██ LSI MegaRAID SAS 9271-8i (LSI SAS2208 ROC), 1GB cache with Battery Backup Unit
- ███ 900GB 2.5-inch 10Krpm 6Gb/s SAS█ 2█████ RAID1█ 1█████
- ███ RAID1+██████████



Tier 2█



/archive

- ████████ 100%
- █████ 1.91 PiB
- █████ 0██████████ 7██████████ 4█
- IO██████ Dell PowerEdge R740xd: zfs
- ███ 2*25 Gigabit Ethernet
- ███ RAID-Z 3
- █████ /archive █████












```
/.zfs/snapshot[ ] [ ] [ ] [ ]
```

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Tier 2

--	--

s3.nju.edu.cn

-  100%
-  2.12 PB
-  UniverStor P20000
-  12*10 Gigabit Ethernet
-  Large object: 15/4, Small object: 6/4
-  S3
- Endpoint: <http://s3.nju.edu.cn> OR <https://s3.nju.edu.cn>
- Region: “ ”  us-east-1
- 

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-
-  24

`/tmp/` `/var/tmp/`

```
/dev/shm/
```

/ssd/ /tmp/ssd

SSD