Update from Cambridge
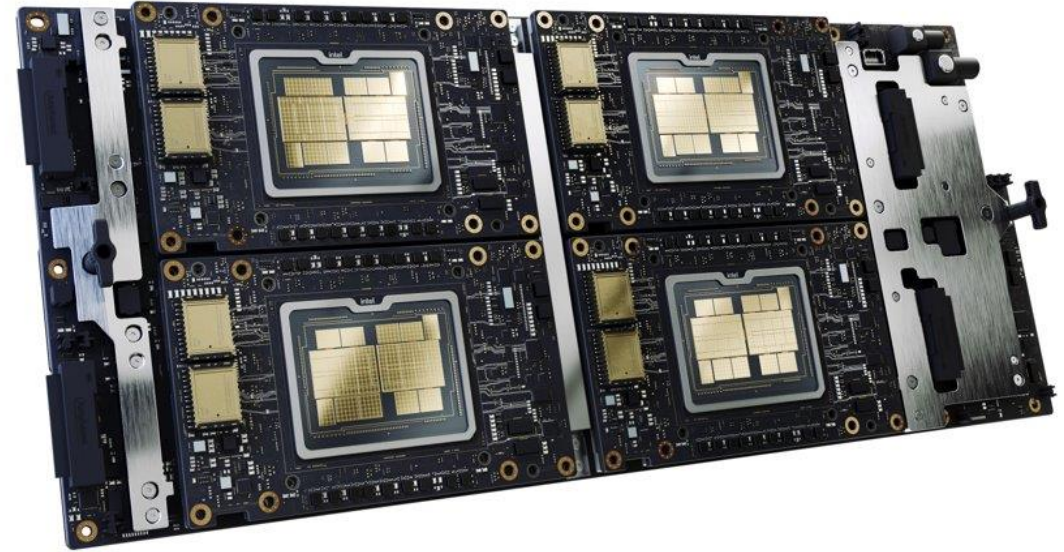
RSEcon 2023 HPC BoF Session

Cambridge Open Zettascale Lab – Chris Edsall - @hpcchris@scholar.social

Out with the old, in with the new

- Intel Skylake -> 0
- Intel Icelake 544 -> 700
- Intel Sapphire Rapids 0 -> 110
- Intel PVC 0 -> 4
  - 2x Intel
  - 2x Dell PowerEdge XE9640
- Nvidia A100 80 -> 90
- Nvidia L40 0 -> 10

Images: © Intel Corporation

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Energy Efficient HPC

- Follows on from static power management on GPUs (work from **Athena Elafrou** on Nvidia A100s presented at GTC 21)

- Dynamic power management on CPUs (Intel Icelake)
  - GeoPM
  - Work in progress from **Matt Walker** (DiRAC placement student)
    - SPEChpc 2021 workload
    - Stalled during Summer 2023

- Revive with DiRAC work from **Tom Meltzer** (now at Cambridge) and new placement student

- Observability platform (work from **Dominic Friend**)