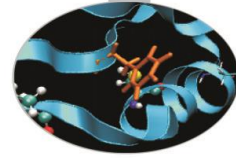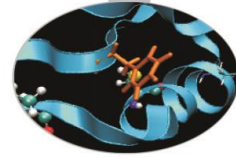# Outline

- MARCONI: Sanity checks launched during production on March (linpack, stream)

- Statistics on the power capping detection on the nodes of MARCONI

- MARCONI100: Sanity checks on GPU (dgemm, stream, nvlink, p2p) during production on February
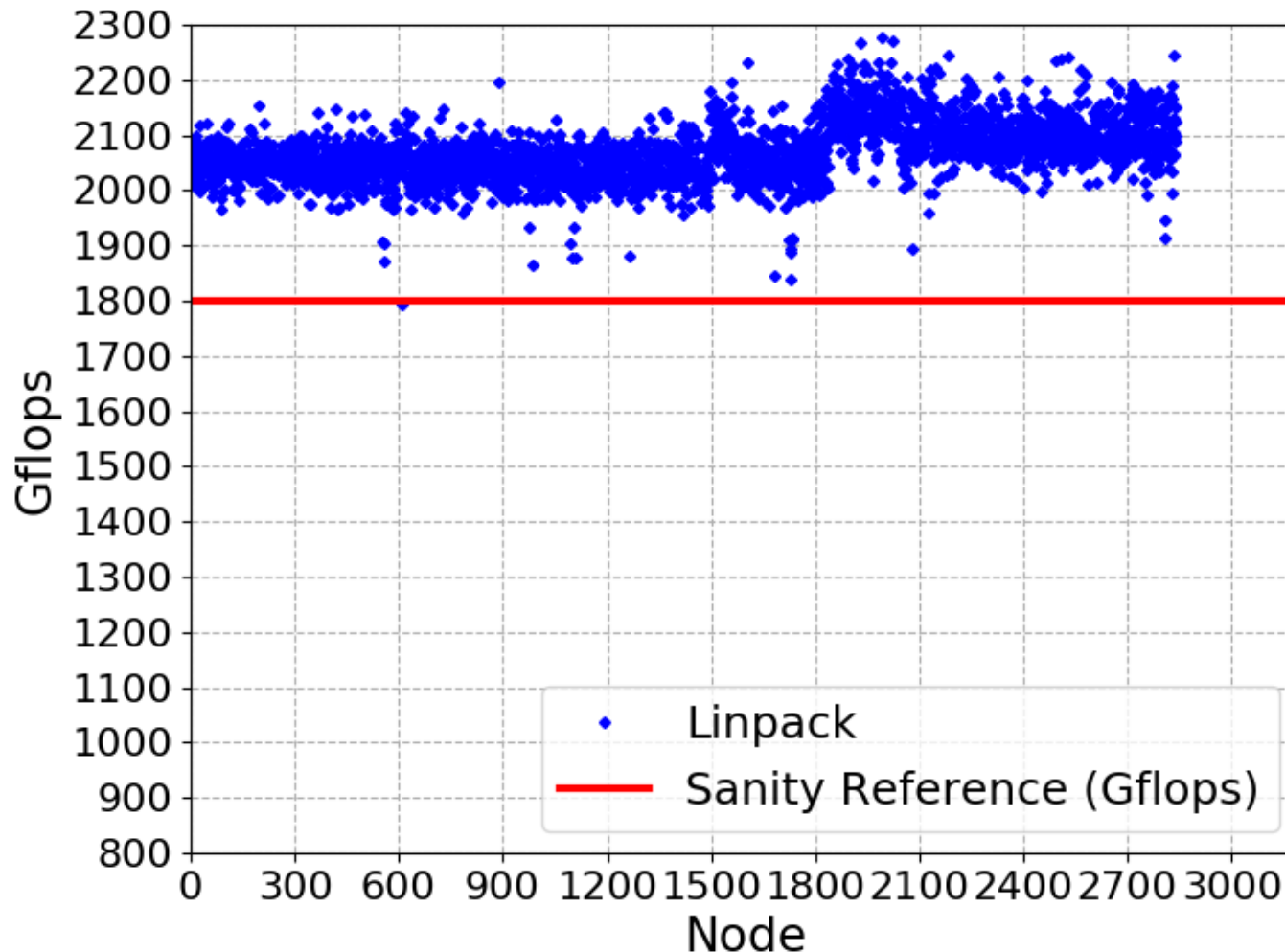
MARCONI – March 2022

- Tests were performed during production and launched on March 1st

- Tests: linpack and stream on each single node of SKL

- 2840 were tested in time for this Ticket Meeting (only EF nodes tested)

- No Switch-level Linpack tests with production runs

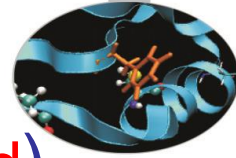- Slow nodes have been removed from production for investigation and fixes
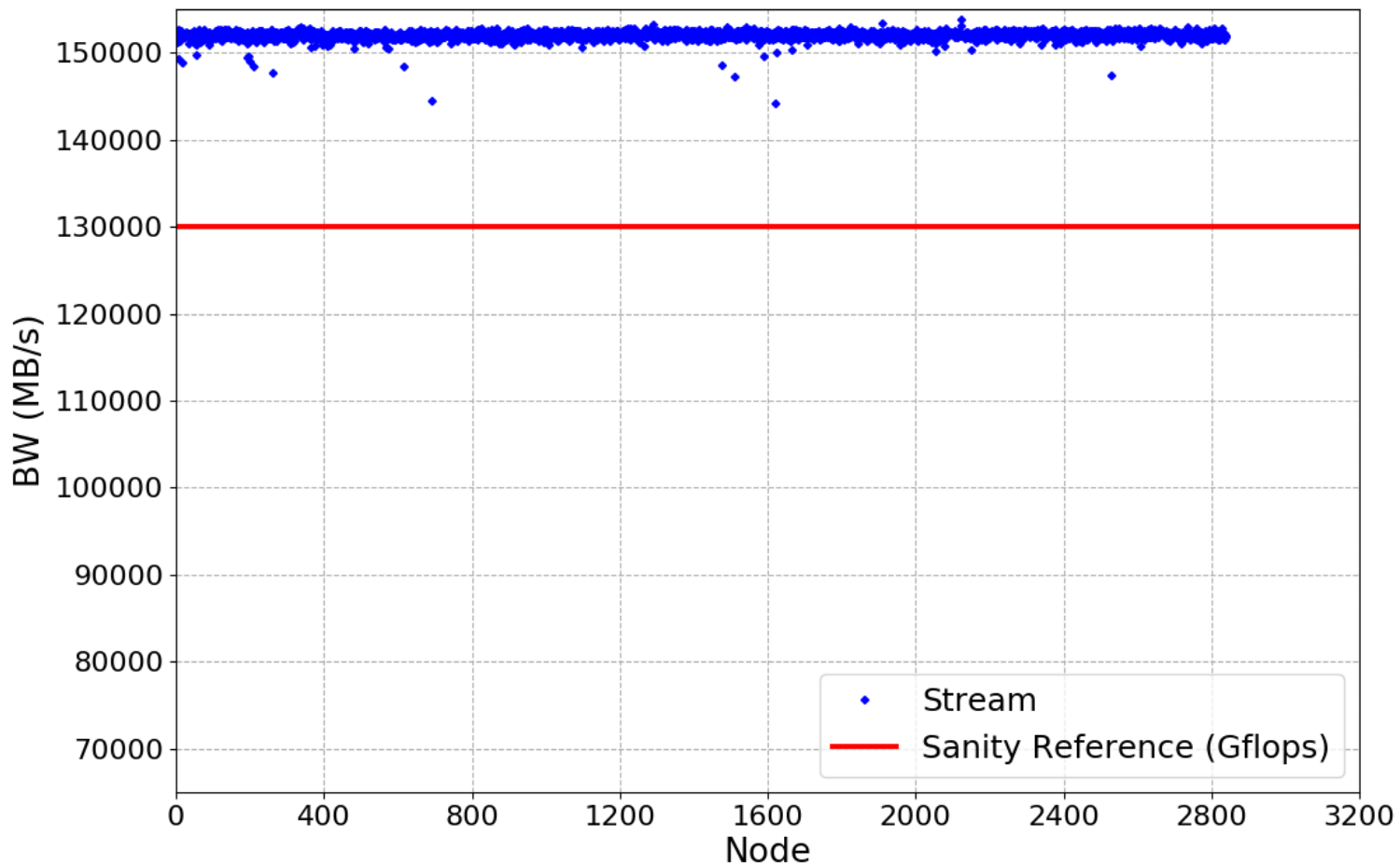
Linpack SKL

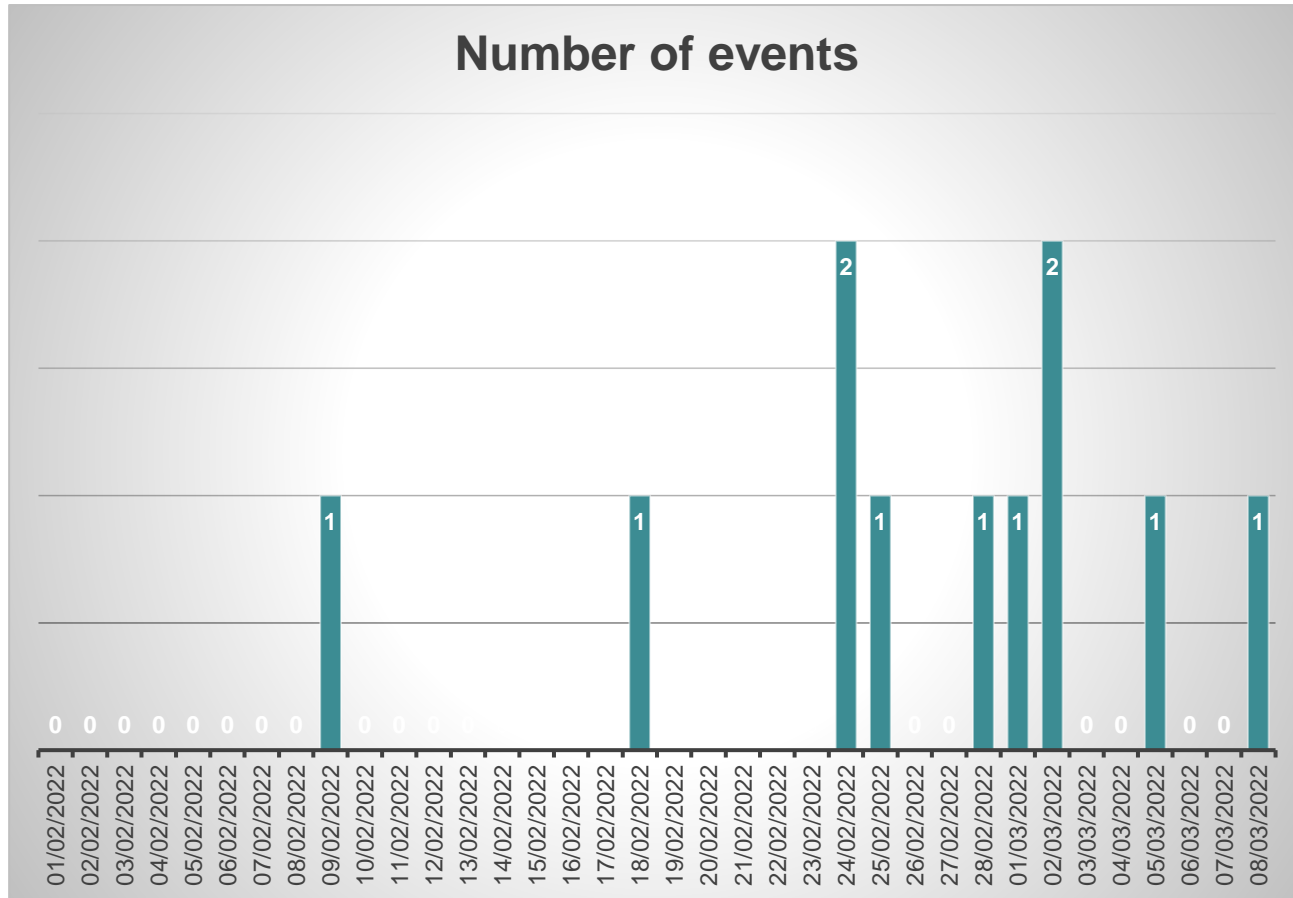- Sanity threshold: 1800 Gflops (one slow node found)

Stream SKL

- Sanity threshold: 130000 MB/s (no slow nodes found)
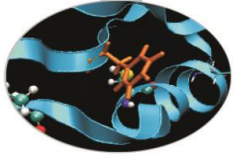
Power capping events on MARCONI

- **11 nodes** with power capping on notified from 01/02/22 to 08/03/22
- An event is registered when the node has a frequency below **998MHz**
- Tests needed to see how it compares to the Gflop/s measured by our sanity checks
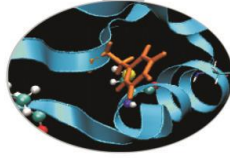
Power capping events on MARCONI

- **Below is the list of uncapped nodes during 2022**:

  - 05/01: r161c01s01 (1), r161c02s01 (1)
  - 07/01: r163c09s02 (1), r171c16s04 (1)
  - 08/01: r141c16s02 (1)
  - 11/01: r161c01s04 (1), r161c02s01 (2)
  - 13/01: r141c16s02 (2), r161c01s02 (1), r161c01s04 (2)
  - 14/01: r141c16s02 (3)
  - 24/01: r165c02s04 (1)
  - 25/01: r165c02s04 (2)
  - 27/01: r149c16s04 (1)
  - 09/02: r161c01s01 (2)
  - 18/02: r137c14s01 (1)
  - 24/02: r141c16s02 (4), r167c12s04 (1)
  - 25/02: r141c16s02 (5)
  - 28/02: r165c16s04 (3)
  - 01/03: r165c16s04 (4)
  - 02/03: r137c09s02 (1), r165c16s04 (5)
  - 05/03: r141c16s02 (6)
  - 08/03: r175c15s03 (1)

- There are some heavy offenders that are worth investigating

- **13 different nodes** in 67 days

- The nodes involved in the January Sanity Checks were NOT uncapped, it was a procedure fault (currently don't know why)
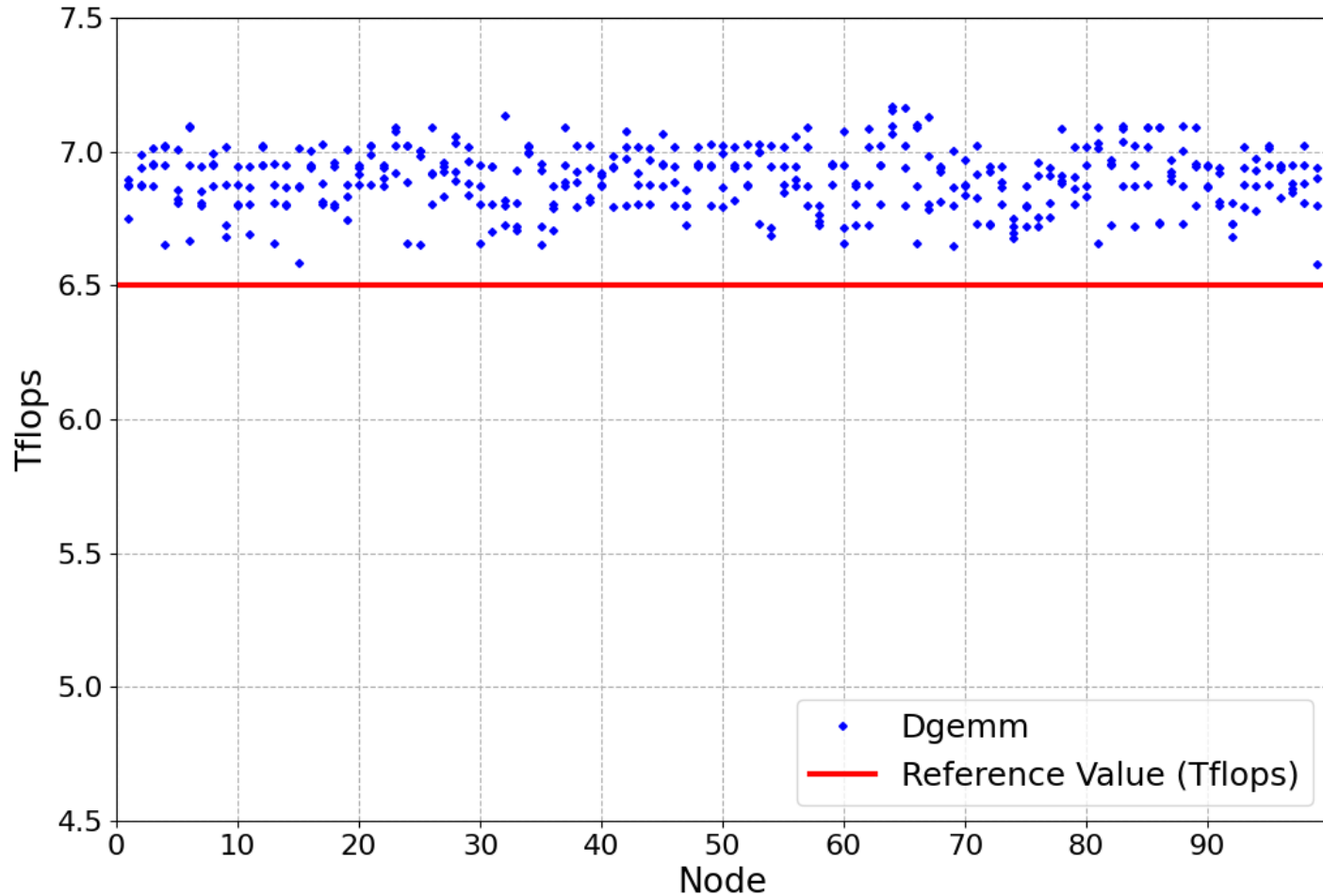
MARCONI100 – February 2022

- Sanity checks were performed during production and launched on February 22nd

- Tests: dgemm, stream-GPU, nvlink and p2p on each single node of M100

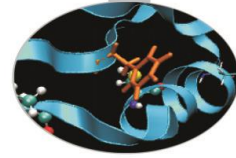- Results from the nodes of EUROFusion partition are shown

Dgemm

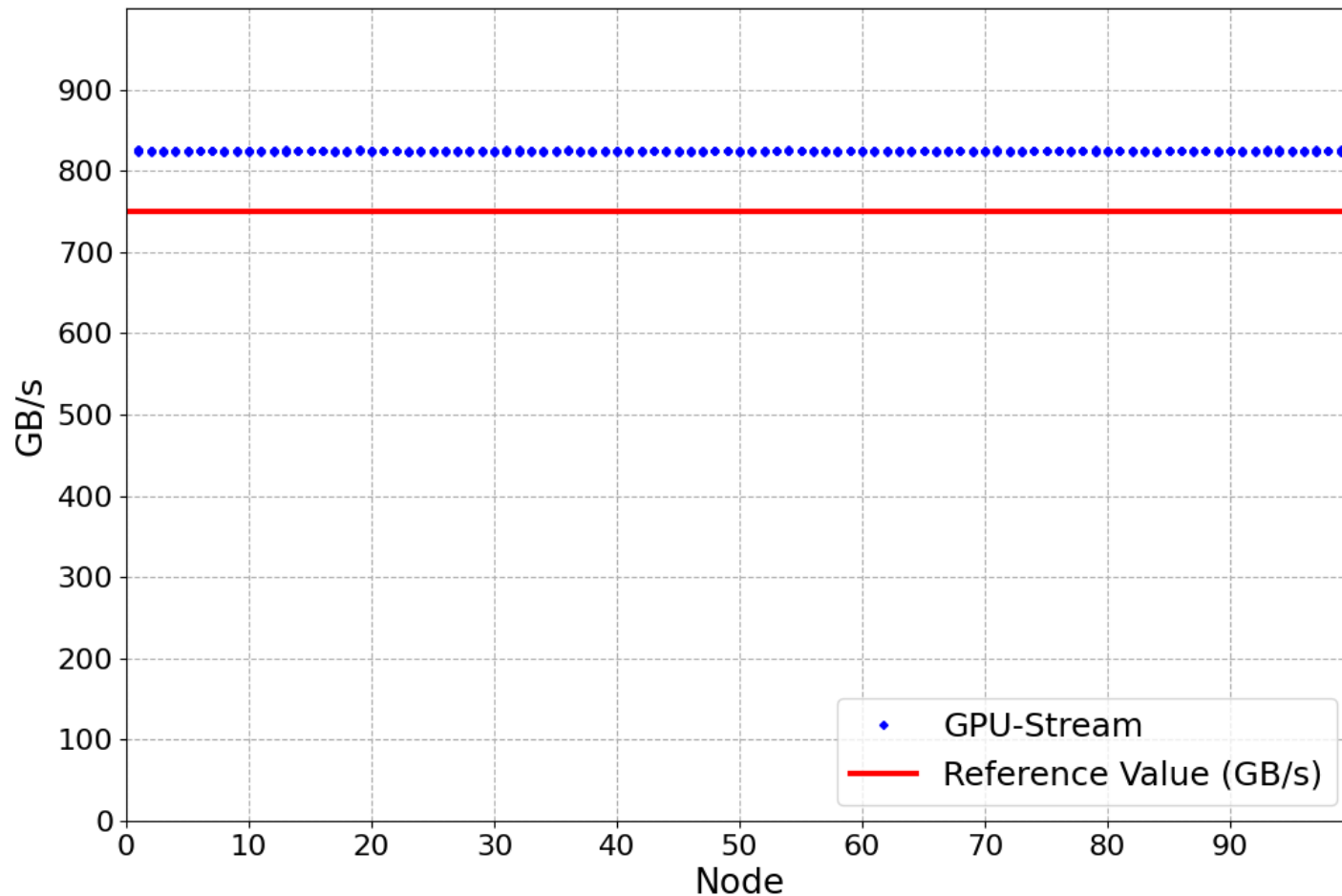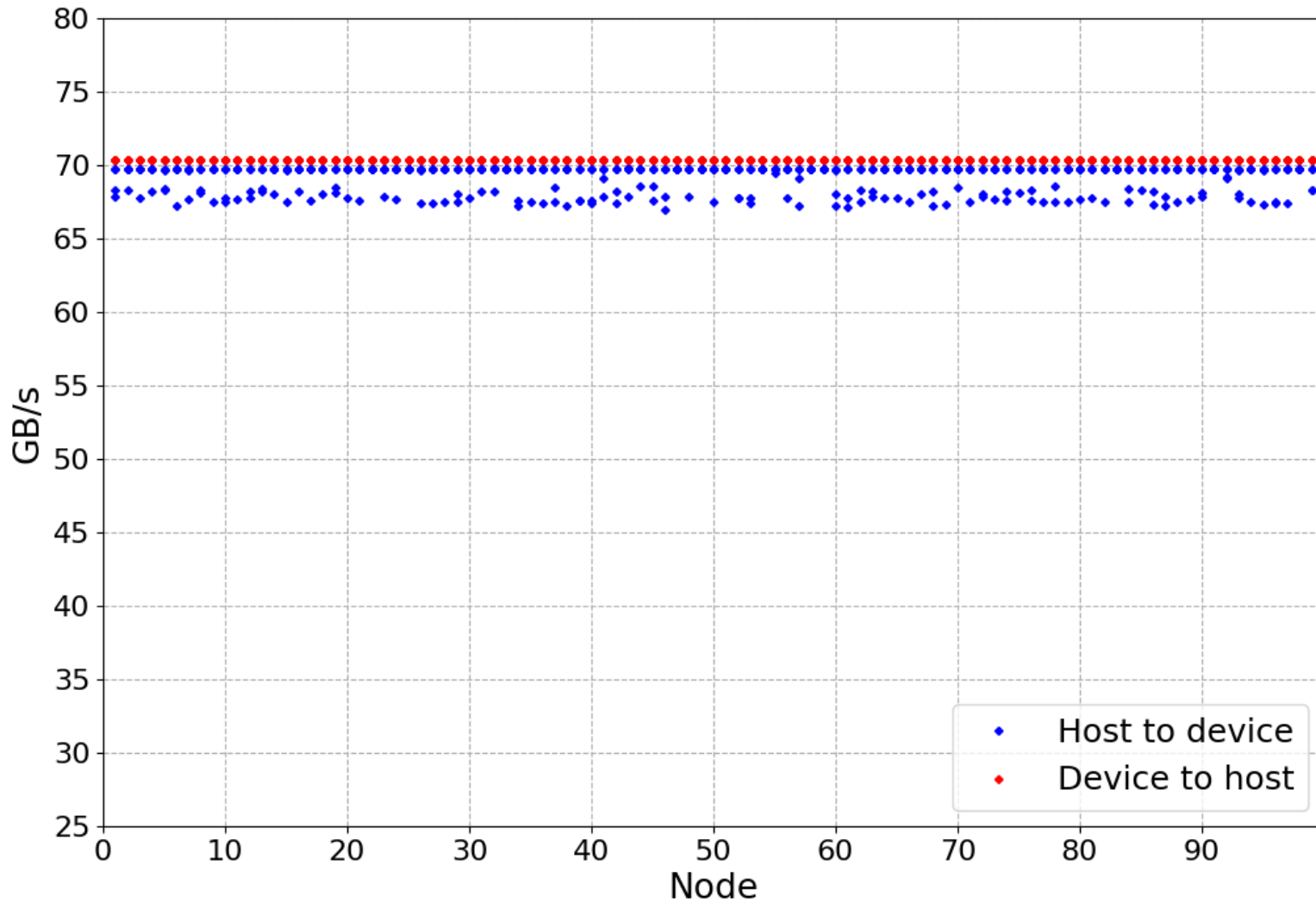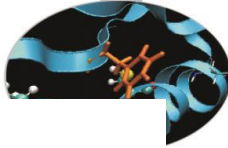- Sanity threshold: 6.5 Tflops (no slow GPU found)

Stream-GPU

- Sanity threshold 750 Gb/s (no slow GPUs found)

Nvlink-GPU

P2P-GPU

GB/s vs Node scatter plot. Legend: GPU on same socket (blue, ~135 GB/s), GPU on different sockets (red, ~38 GB/s).