

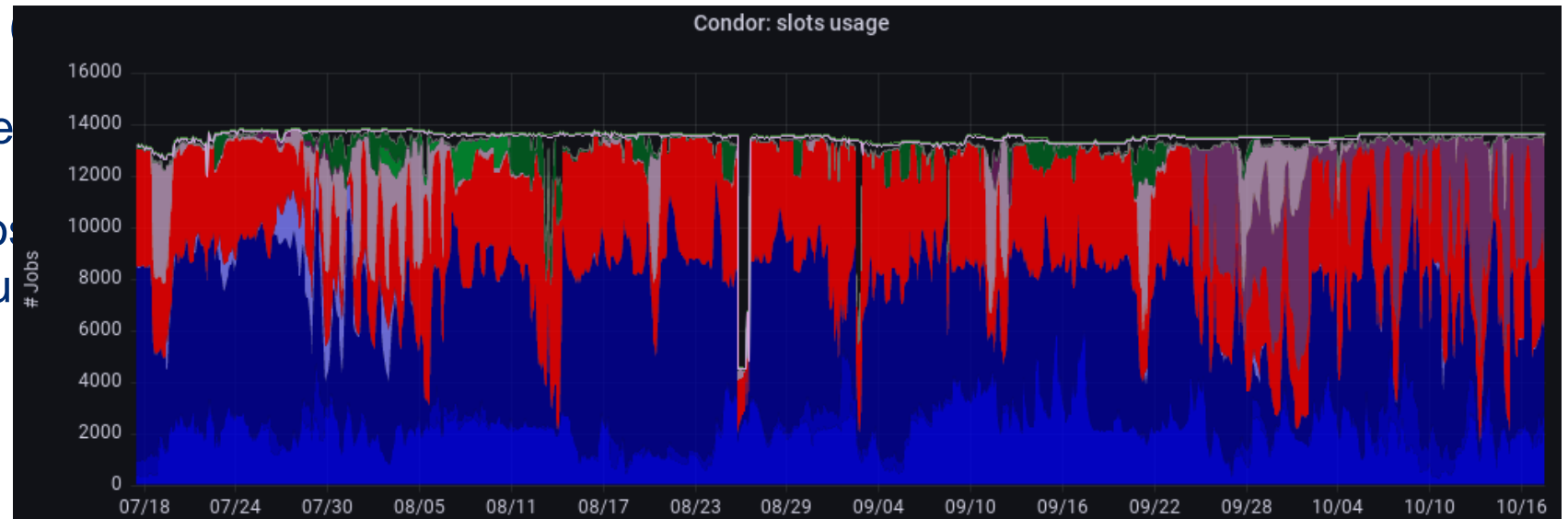
Computing for HEP and astroparticle physics

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Computing HW resources for HEP in CZ

WLCG Tier-2 center at FZU

- Golias cluster: 13600 cores (HT), 11 PiB on disks
 - Some resources located at NPI (storage for ALICE) and MFF UK (1200 cores)
 - Decrease to 9000 cores and 8.5 PiB soon (decommissioning of old clusters)
- Used by ATLAS, ALICE, PAO, DUNE, CTA, NOvA
- 2023 pledges for ATLAS (24400 HS06)
- very good network connection (direct to internet)
- 2 clusters for CEICO (Cosmic Electron Imaging)
- heterogeneous LUNA cluster



Other shared computing HW resources in CZ

CZ eInfrastructure (Large Research Infrastructure)

- **CESNET (CZ NREN) + CERIT-SC (Masaryk University) + IT4I (VSB-TU Ostrava)**
 - Metacentrum: 30000 cores (non HT), 21 PiB disk capacity
 - cluster skurut (1000 cores) used mostly by PAO, Belle2, CTA and ATLAS (via BOINC)
 - CESNET Datacare: 69 PB (RAW) on CEPH, 33 PB HSM and disk capacity
 - Supercomputers at IT4I:
 - Karolina (2022): 92160 cores in universal part (3.8 PFlop/s) + GPU part (11.6 PFlop/s) + other parts
 - Barbora: (2019): 6912 cores in universal part + GPU part (.85 PFlop/s total)

More difficult to use:

- fairshare limitations in Metacentrum
- short term (months) grants in IT4I

Next years

Skilled stuff - administrators, developers, supporters

Energy prices:

- expect 5x increase for Tier2 at FZU since 2023
- by decommissioning of some old hw we can decrease our consumption by 35 – 50% (will remain just enough for pledges)

OP JAK

- Call for LRI expected in 2023, we expect to renew Tier2 resources

EOSC CZ:

- Projects can expect resources for permanent data storage
- Call for scientific clusters expected in 2024

Discussion



FZU

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