**Background**

CERN Meyrin computer center is limited to 3.5MW
- No extension inside CERN (financial & political)
- Call for tender, won by Wigner Institute / Budapest / HU
- 2x 100Gb/s links = plenty of bandwidth, redundant

**Benefits**

Can double CERN computing capacity (+2.5MW)
- Allows for business continuity even on major mishaps
- Free trips to Hungary (not - all managed remotely..)

**Timeline**

- During 2012: construction work
- Spring 2013: network and first hardware
- Autumn 2013: first production services at 10%

**Performance Impact?**

Initial (Gu)es(s)timates:

✔ Low impact for streaming data
  - TCP windows; capped by single disk speed
  - Most writes in this category, & capped by slowest disk

✔ Low impact for short data transfers:
  - anyway limited by disk seeks & overhead

▼ Moderate impact for metadata-only operations
  - Assume: intense activity is close to MGM

✘ high impact on repeated+small+direct-I/O (worst-case)
  - TCP windows don't help for small transfers
  - n × Δ-latency
  - ("real" jobs would compute something..)

**Countermeasures**

**Local caching – experiments’ decision**

- ROOT TTreeCache recovers most of the lost performance even for “remote” access. Default in ROOT-6..

**Data locality and GEO-Scheduling (EOS-0.3)**

- Place file replicas “far apart”; on access prefer closest replica
- can completely hide data read latency once size(Wigner) ≥ size(hotdata)

**Per-site replicated services (EOS-0.3)**

- Clients talk to local MGM (readonly, writes go to master) – no more penalty for metadata (read) operations