UniGE Tier 3, an update

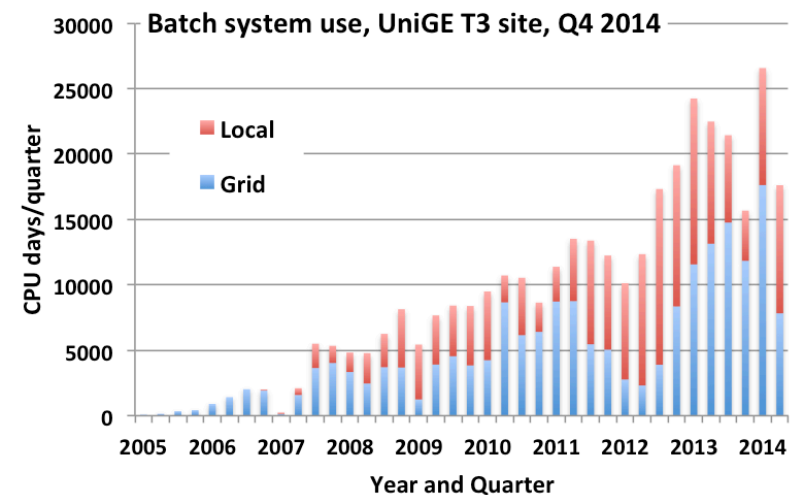**Jan 29th, 2015**
Szymon Gadomski
DPNC, Université de Genève

1. Hardware numbers
2. Usage statistics for 2014
3. Free hardware from Yahoo
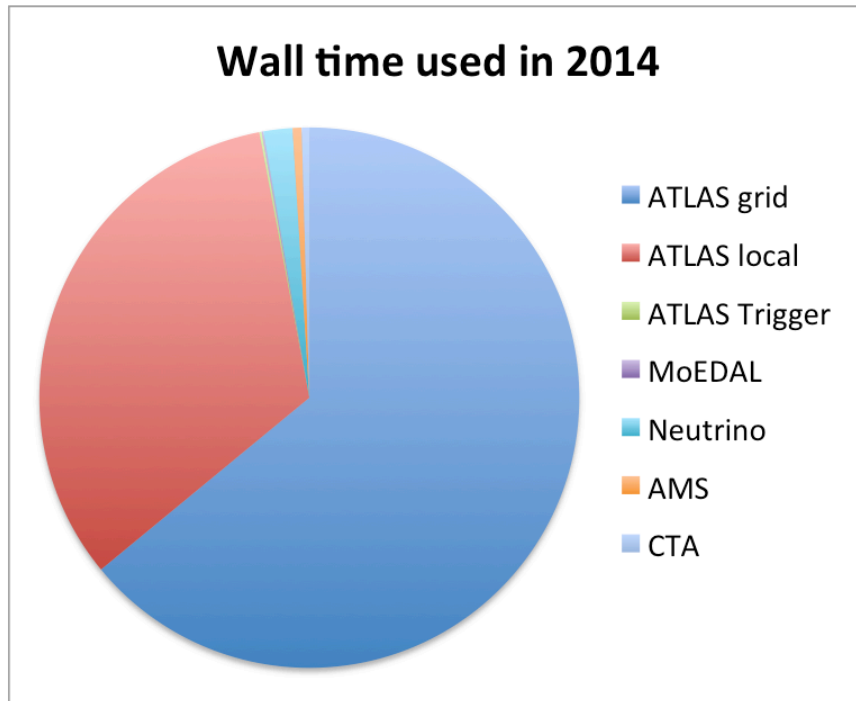4. Upgrade plan for 2015

The Geneva T3, Jan 2015

- **848 CPU cores**
  - 688 in batch, 96 login, 64 Windows
- **712 TB net**
  - 474 in a grid Storage Element (DPM)
  - 238 NFS
- **10 Gb/s direct to CERN IT**
- **~5 Gb/s to the Swiss academic network**
- **used mainly for ATLAS, but not only**
- **ATLAS grid jobs using spare CPU**
- **gradual build up since 2005**

Batch system use, UniGE T3 site, Q4 2014

Usage statistics for 2014

Wall time used in 2014

Legend:
- ATLAS grid
- ATLAS local
- ATLAS Trigger
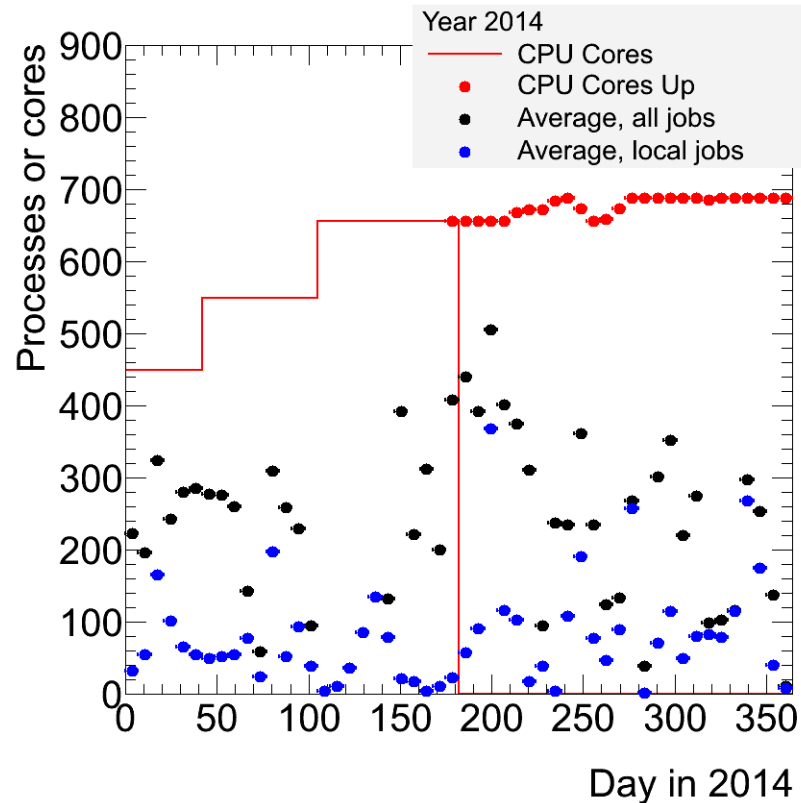- MoEDAL
- Neutrino
- AMS
- CTA

- **The grid share is higher than in previous years (~50%)**
- **In total the machines are 36% used. This used to be ~50% as well**
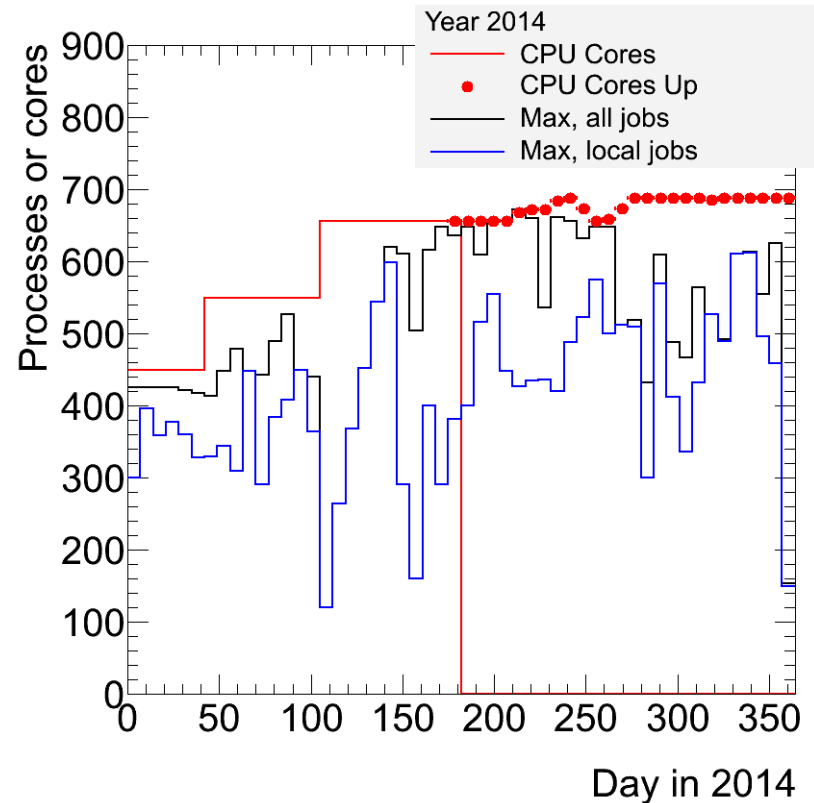- **We have spare capacity**
- **The users like that, positive feedback**

Usage statistics for 2014 (2)

An attempt to see how often all CPU are used

Average number of jobs

Maximum number of jobs per week

Free hardware from Yahoo (Suisse)

- **25 machines (200 cores) were given to us**
- **about ½ already transported**
- **we will use them to replace our oldest batch servers (2007 and partly 2008)**

Upgrade plan for 2015

1. **Improve network for data access to the Network File System servers**
   - the NFS has 235 TB, i.e. not so small
   - IceCube, CTA, AMS, Neutrino and DAMPE use only NFS
   - a directory == 1 server == network saturation risk
   - up to four 1 Gbps connections per server, but still a risk
   - plan to install 10 Gbps connections for 7 NFS servers
2. **Renew and increase storage**
   - replace four disk servers (96 TB) from 2009 and 2010
   - three new machines, 126 TB
   - space for Neutrino, anticipation of ATLAS Run 2
3. **Two machines for running services**
   - replace those from 2008 and 2009
   - services: web, monitoring, OS installation, CernVM FS