

ATLAS computing at DESY



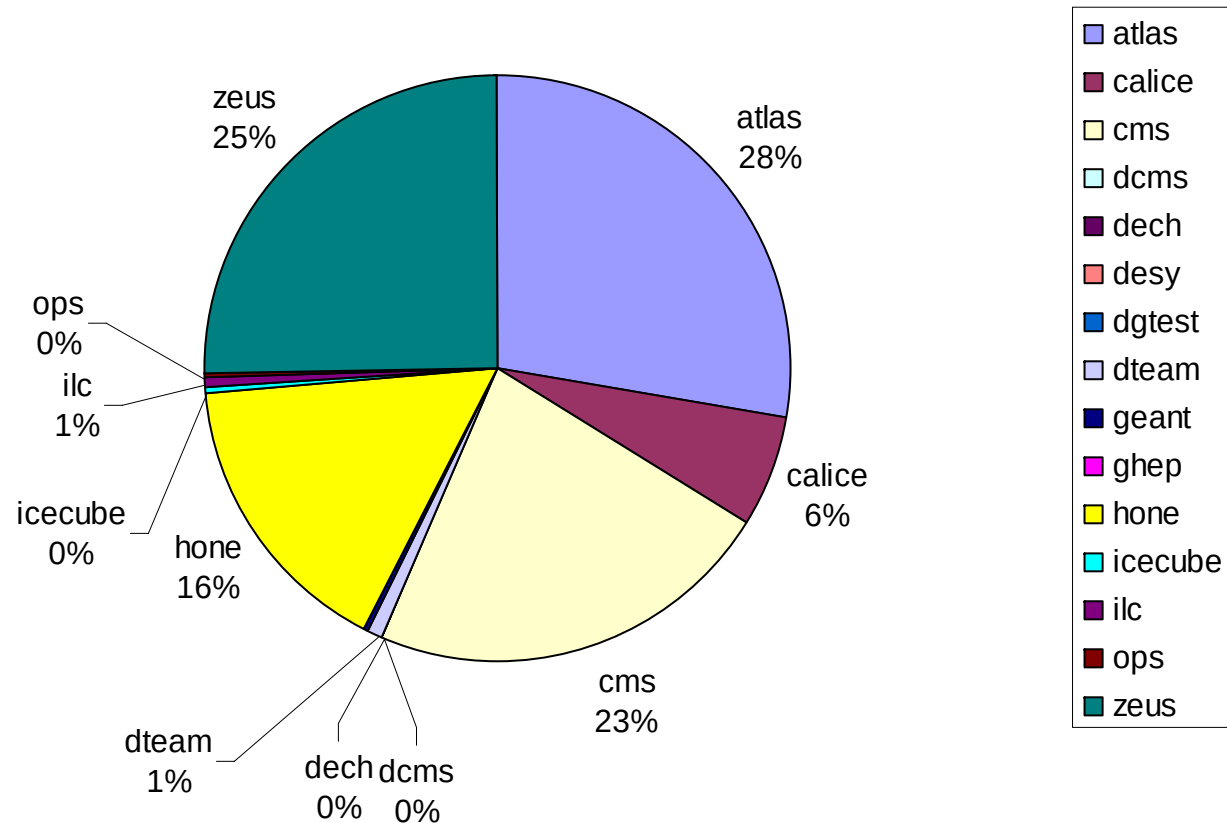
M.Gasthuber, Y.Kemp, P.Wegner

- **Tier2 statistics**
- **Resources, plans**
- **Activities**
- **ATLAS-D Computing meeting, Bonn**

DESY Tier2 usage



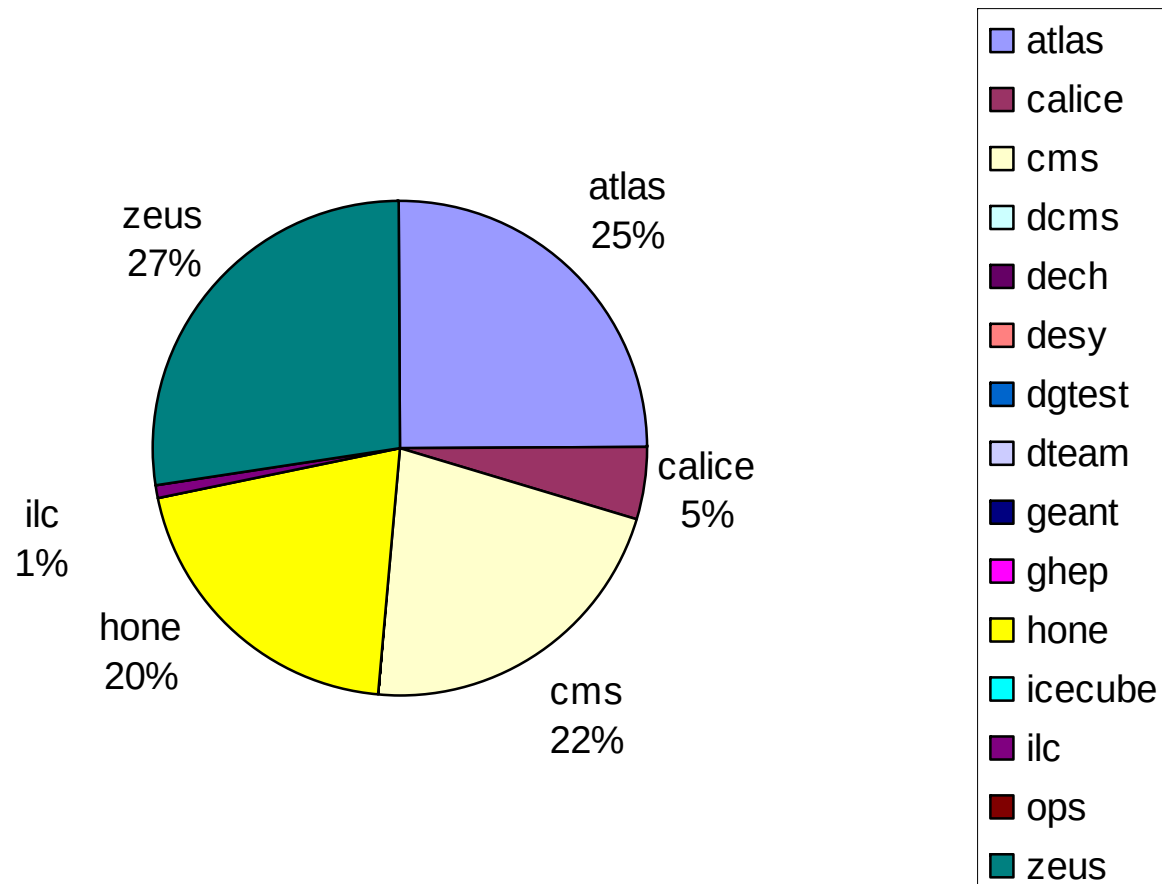
DESY Tier2 WallClock time distribution, 5 CEs



DESY Tier2 usage



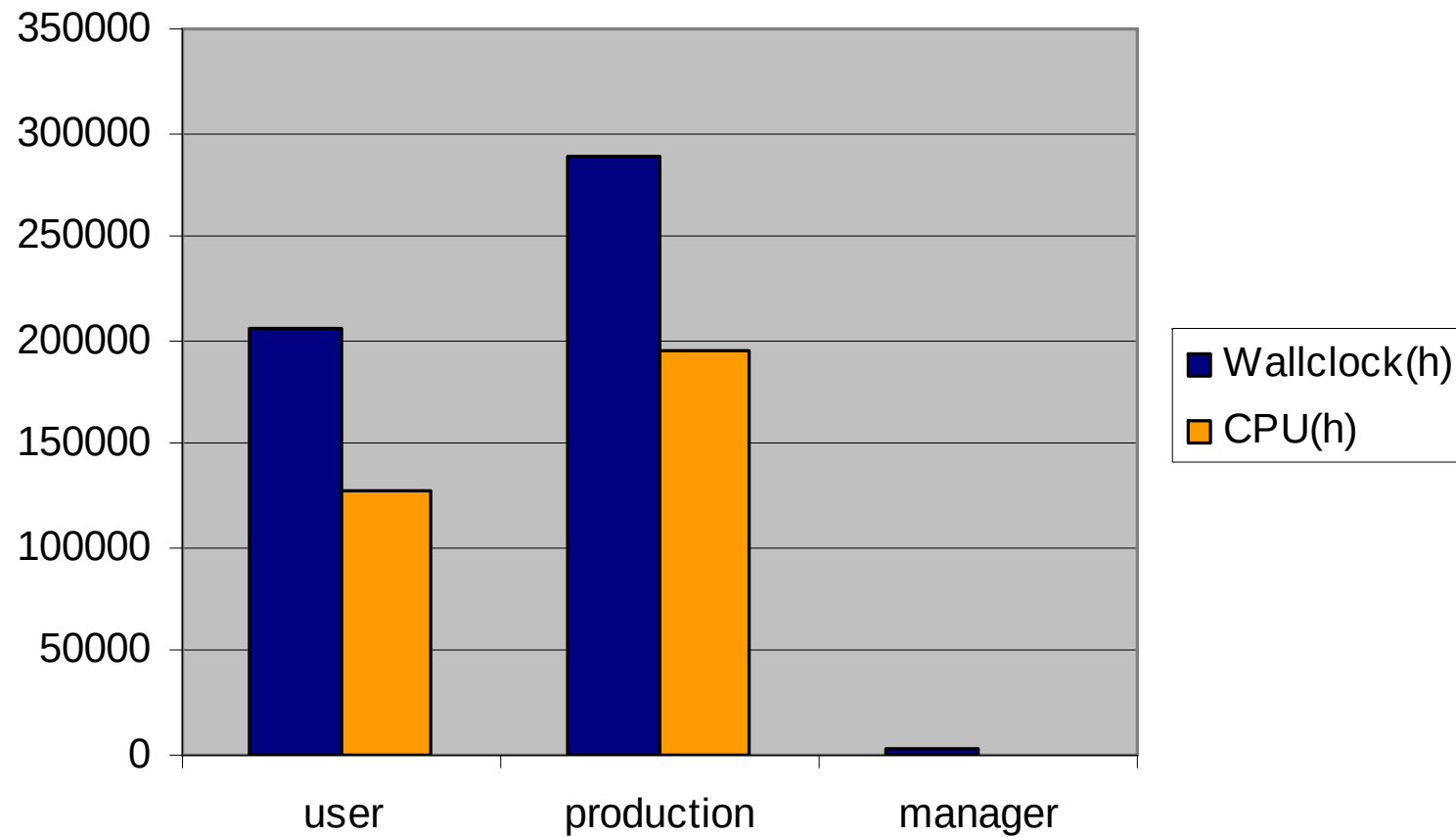
DESY Tier2 usage CPU time distribution, 5 CEs



DESY ATLAS Tier2



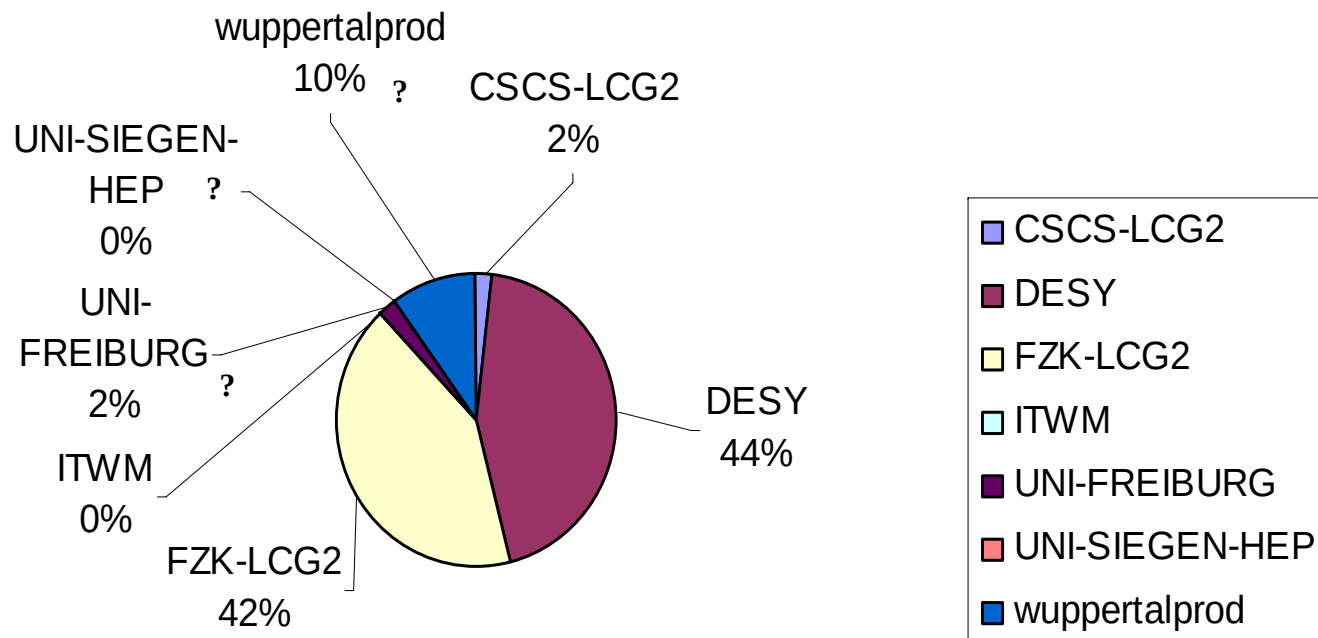
ATLAS DESY Tier2 usage Jan-May 2007



GridKa Cloud Tier2s



EGEE Accounting (corrected for DESY): ATLAS Tier2s in GridKA Cloud, Jan-May 2007



Due to problems publishing
the accounting data

(APEL – RGMA)

DESY HH, Wuppertal,
Siegen, and Freiburg lost
accounting records.

The DESY records have been
corrected according to the
local accounting data.

http://www3.egee.cesga.es/gridsite/accounting/CESGA/egee_view.php -> GermanySwitzerland, atlas

Please note the gaps in accounting records

Tier2 Resources



DESY Grid infrastructure/resources

Tier2 Atlas, CMS, plus additional VOs H1(Tier0), ZEUS,(Tier0), ILC...

- ~700 CPU cores, 900GB main memory,
- ~150TB disk

ATLAS dedicated: ~40 TB

additional quad core WNs planned in Zeuthen (long term replacement of old 32-Bit WNs)

Wide Area Network

10 Gbps DESY HH-ZN

DFN starts installation end of May, DESY part starts mid June

HLT activities



Testing monitoring codes and trigger applications

Minimum bias trigger tests, timing measurements for LVL2 trigger
goal: keep trigger run time inside LVL2 time budget

Test performance monitoring of the trigger farm, run time of trigger code per event, ...

Analysis: after upgrade to SL4 (necessary for trigger tests) no further analysis activities on the farm, waiting for Athena release 13 which should run under SL4

Dedicated workgroup server needed?

Atlas HLT, see also PRC talk: http://www.desy.de/prc/talks_open/meet_63/LHC_PRC63.pdf

AOB



Athena 64-Bit contributions, event generator :
work around to solve problems with GENSER libs

Ganga installed in AFS, Zeuthen
Hamburg: Wolfgang Ehrenfeld

DESY HH Migration from one dCache srm instance to 3 dedicated (atlas, cms and hera),
schedule: test starts mid June

Resource Broker at DEY: If a DESY-RB is used please take atlas-rb.desy.de (alias)

Mapping of SGM and PRD has changed

Contributions/Participation in FDR (Final Dress Rehearsal) Analysis from DESY?

ATLAS-D Computing meeting in Bonn

(<http://indico.cern.ch/conferenceDisplay.py?confId=15266>)



ATLAS computing model

GridKa Cloud status

Distributed analysis in ATLAS (Ganga)

NAF – National Analysis Facility (at DESY)

User analysis experiences/request (Uni Bonn)

Tier3 options

Site reports

ATLAS-D Computing meeting in Bonn

(<http://indico.cern.ch/conferenceDisplay.py?confId=15266>)



Issues:

ATLAS analysis in Germany, Tier3's structure, Tier3 access to data, Tier2/Tier3 relationship, Grid vs local clusters, ...

Discussion (1):

AODs in Tier2s (2x) + NAF

NAF necessary, but in the order of an av. Tier2 not sufficient

Can we trust the quality of AODs at the beginning -> ESDs needed (!), ESD analysis at NAF (full copy?)

AOD processing throughput : 2 MB/s, new data formats are under discussion, e.g. combined ESDs/AODs

(Physics Analysis Tools Workshop 2007, Bergen <http://indico.cern.ch/conferenceDisplay.py?confId=11987>)

ATLAS-D Computing meeting in Bonn

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Discussion (2):

Tools like Ganga, DQ2 have improved the Grid acceptance

High simulation/analysis batch throughput needed (loops over 10000 or more events), local batch farm ? Shared farms (local & Grid)?

Man power effort for LCG based environment: SLx, dCache, CEs, WNs ?

Data flow for analysis - RDO->ESD->AOD->AANT

Special MC generators, Sherpa, Whizard, ... - not supported by Athena & Grid

Tutorials (esp. Ganga)

Ticket systems – use existing GGUS/GOC ticket system

DESY NAF -To do's



- **Organizational concept -> part of Alliance**
- **Agreement on resource usage -> part of alliance**
- **Software stack -> Atlas/CMS**
- **Integration into the DESY infrastructures -> DESY IT/DV**
- **Start procurements -> DESY IT/DV**
- **First operation end 2007 -> DESY IT/DV**

Workshop on ATLAS analysis ?