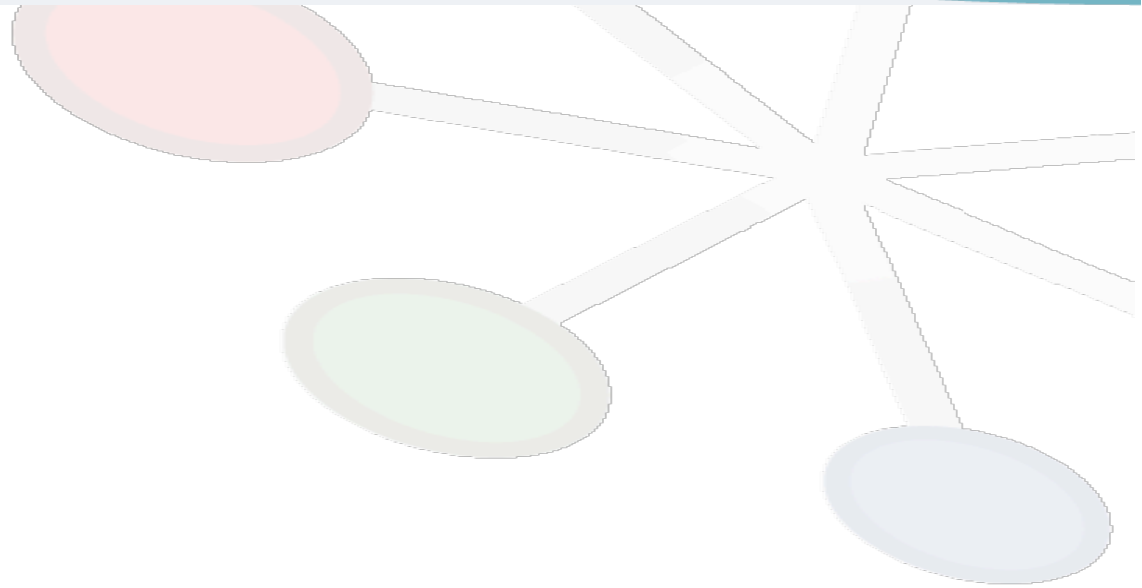




LHCb 2008Q4 quarterly report



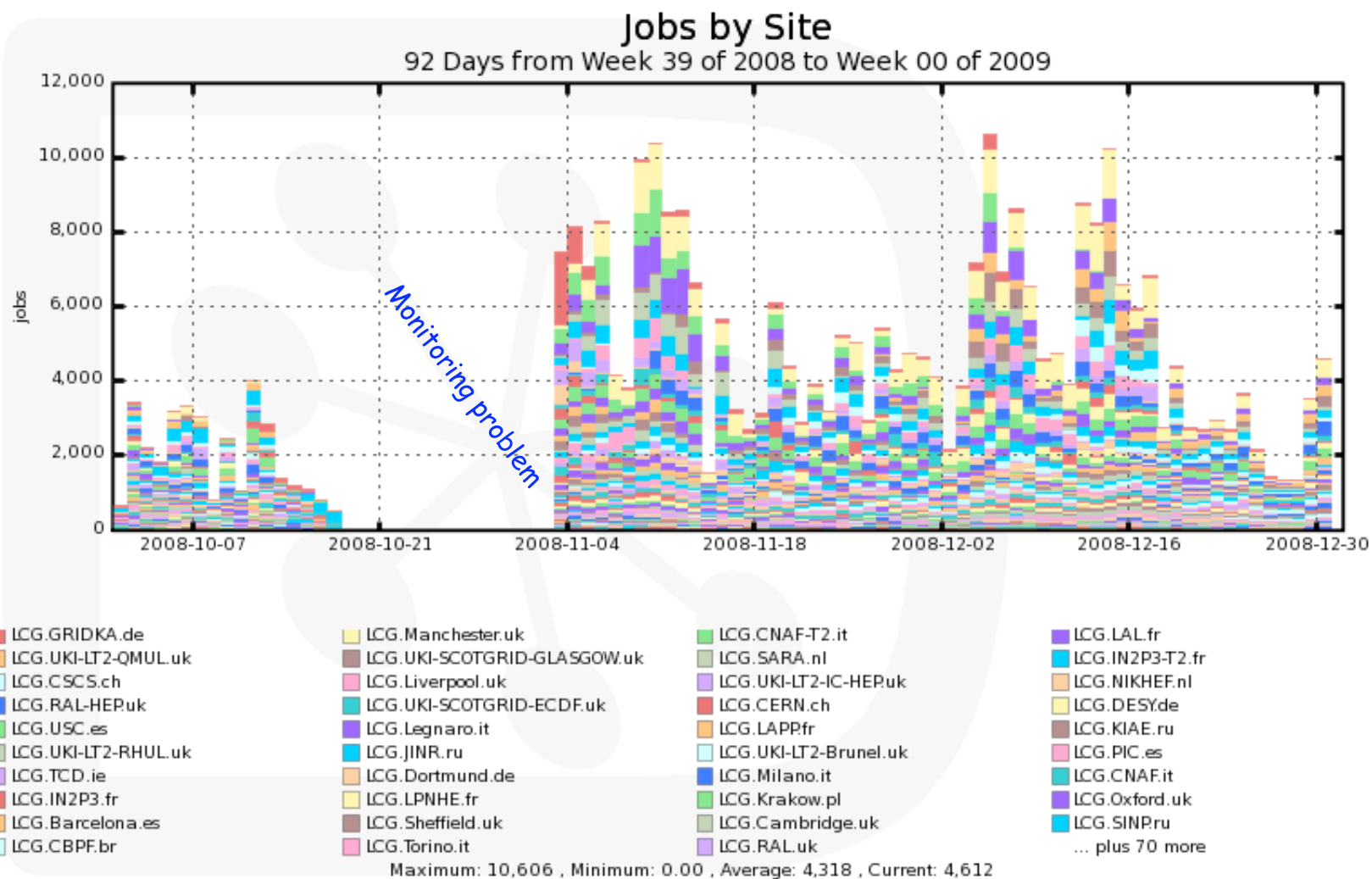


Activities during this quarter

- **Completing commissioning of DIRAC3**
 - **Production tools, complex workflows**
- **Analysis integration in DIRAC3**
 - **ganga backend to DIRAC3**
 - **Migration of first users to DIRAC3**
 - ☆ **Announcement of retirement of DIRAC2 on January 12th**
 - ☆ **Remove completely dependency on LCG-RB**
- **Full SRM v2 migration (October 7th)**
 - **All LFC entries have been migrated to SRM v2.2 endpoints**
 - ☆ **Thanks to FIO support!**
- **Extensive pre-staging tests at all Tier1s**
- **Continuous MC simulation production at all sites**



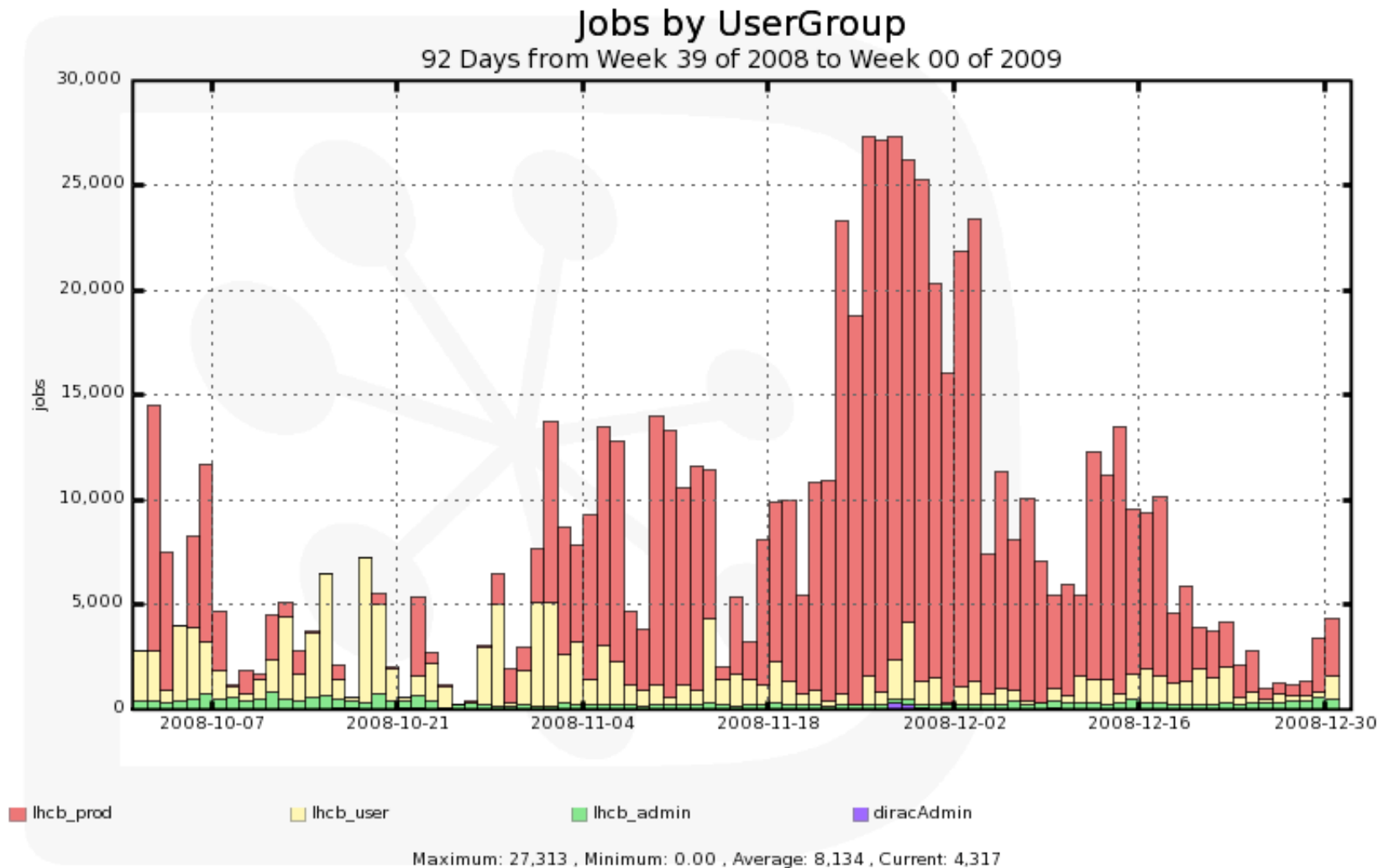
Concurrently running jobs



109 sites



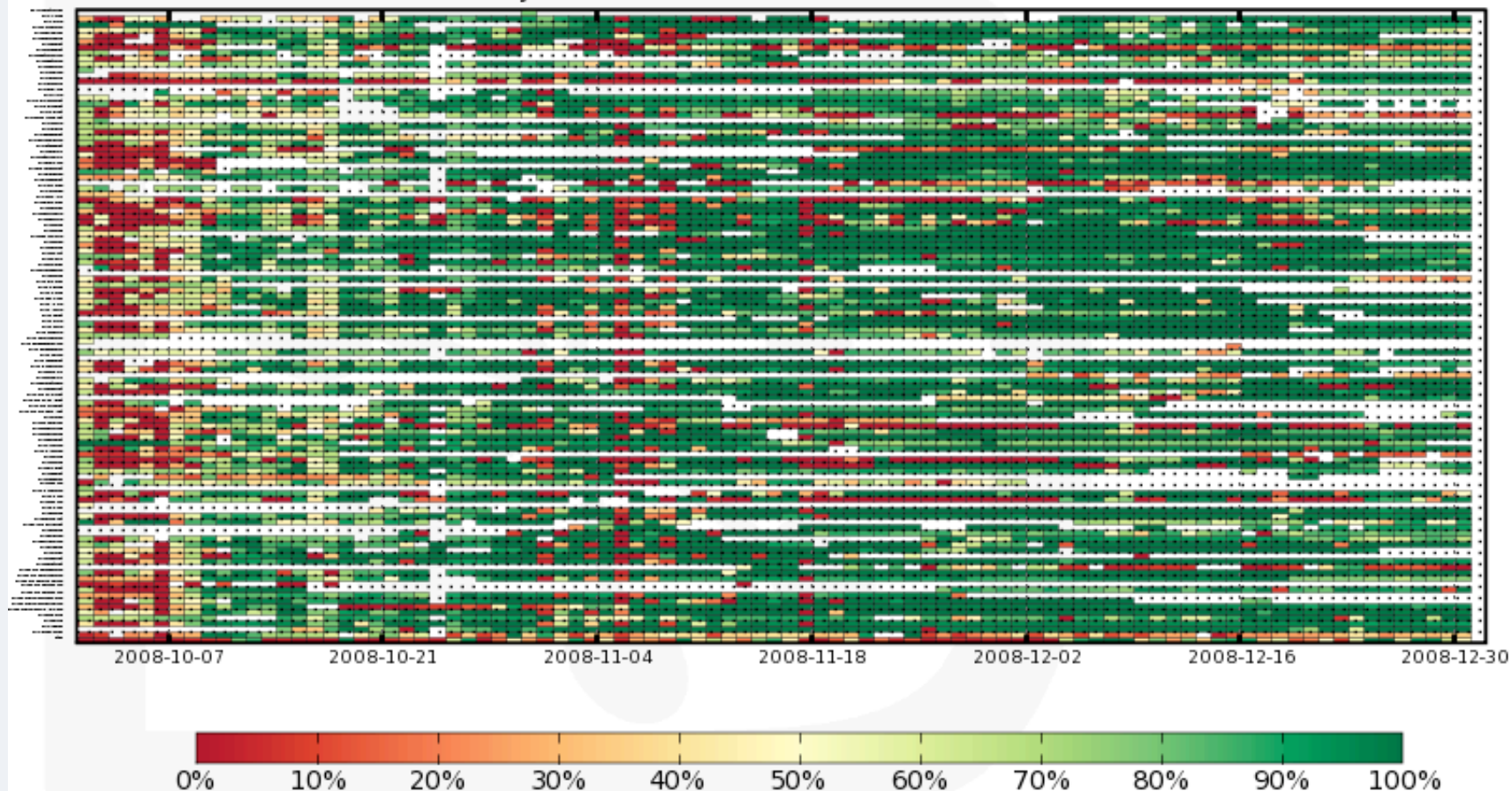
Daily completed jobs





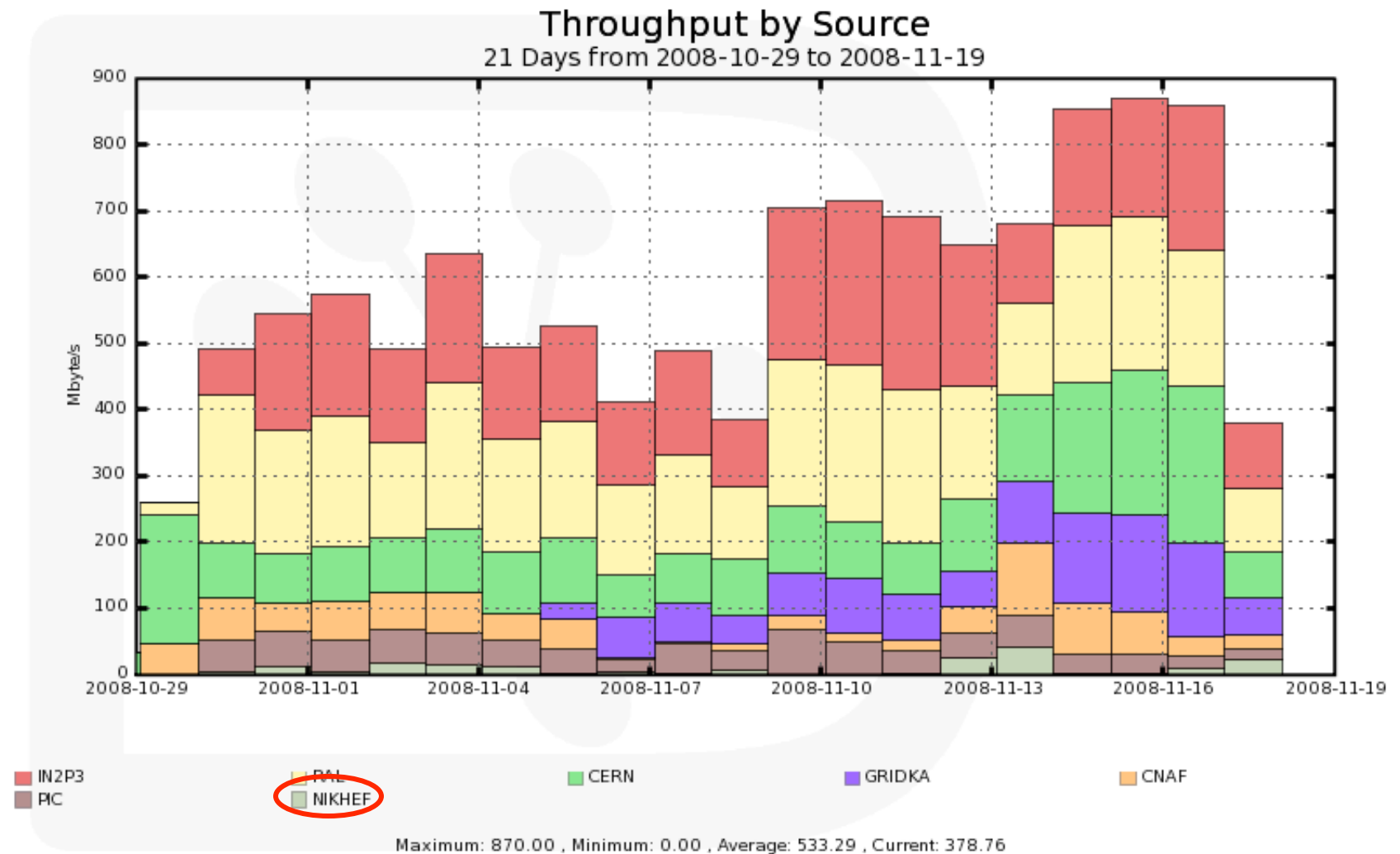
CPU efficiency

Job CPU efficiency by Site
92 Days from Week 39 of 2008 to Week 00 of 2009



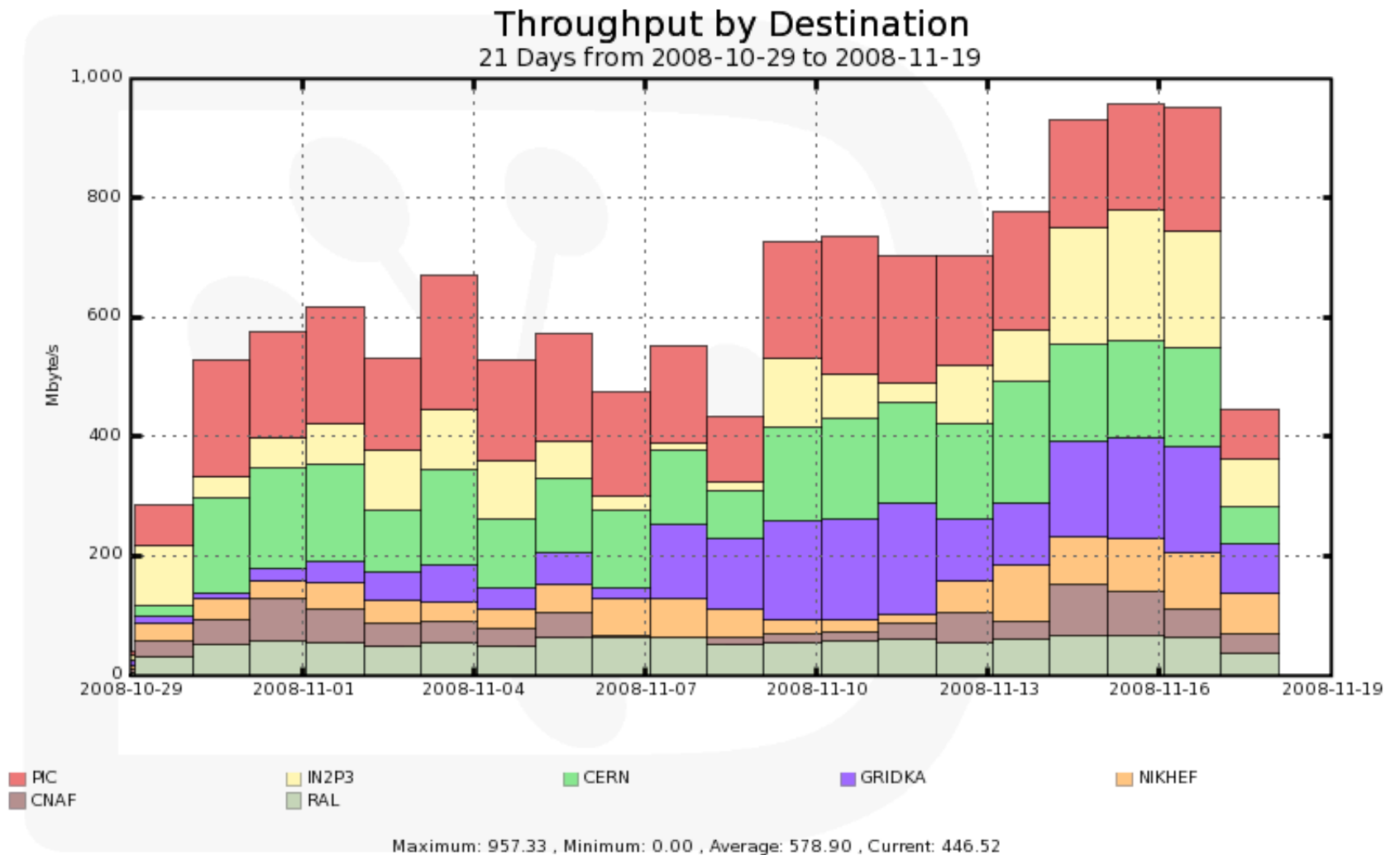


Transfer throughput tests





Incoming transfers





- **Software repository**
 - Still some permission problems
 - gssklog still not working at CERN (can't install from a Grid job)
 - Scalability issues
 - ☆ Hardware limitations?
 - ☆ One Tier1 unusable for several weeks (CNAF)
 - * GGUS 44729: open 11.12.08 (closed and re-opened twice)
 - ☆ Example at CERN: 4 load-balanced read-only AFS servers
 - This is an essential (and neglected) service!
 - SQLite usage on NFS:
 - ☆ Known issue, new SW copies locally the SQLite files
 - ☆ Was killing NFS, apologies...
- **Storage issues**
 - Mostly transfers out of SARA
 - ☆ Working on improving the HW setup, thanks!



- January: de-commission DIRAC2 (done)
 - No dependency on LCG-RB any longer
 - Users are sharing the same DIRAC instance as production
 - ☆ Move to generic pilot tests ASAP (February)
 - ☆ One Tier1 still doesn't support the pilot role (CNAF)
- January-February: application software commissioning
 - Latest Applications releases
 - 2009 geometry, conditionDB usage
 - Lessons from the first few data
- As of March: MC 2009 production
 - Large datasets (to replace DC06 physics data)
 - For both 2009 "pilot run" and 2010 and beyond ("physics")
- Starting now: Full Experiment System Test
 - See presentation at November LHCC referees meeting
 - ☆ Full chain at various rates (short periods ~ one week)
 - Moderate resource usage at Tier0 and Tier1s



- 2009-2010 resources
 - 2009 analysis model being redefined (using 2008 experience)
 - Adapt Computing Model to new trigger strategy
 - ☆ More inclusive triggers
 - ☆ Increased importance of stripping
 - ☆ Very likely "physics group" production activities
 - Take into account CRSG feedback
 - ☆ Review number of DST replicas
 - Revisit figures like
 - ☆ Event sizes, CPU needs for simulation, reconstruction
 - ☆ Move to new WLCG units (factor 4)
 - Outline Tier0-CAF difference in tables...
- Timeline
 - Document ready mid March
 - ☆ Can be presented at the WLCG workshop in Prague
 - Final version mid April to be sent to C-RRB