# ROOT I/O Worshop
# October 2011

Summary

# v5.34 External Contributions

- Allow more than one TTreeCache per file (automatically) - Peter
- Resolve the issue of the TTreeCache startup time – Peter
- Reimplementation of OptimizeBaskets – Brian
- Fast Merging sort by cluster and branches - Brian
- Testing of parallel prefetching – Brian
- I/O Customization: Write Rules – Chris
- Test environment - Ilija/Wahid

# Gathering Statistics

- Proposal to allow instrumentation to understand what is the real fraction of the file are being read.
  - For example by enabling a statistic dump of the fraction of files each jobs read and share that information with CERN IT?
  - This really need to be done only for a sub set of the jobs.
  - Should use TTreePerfStats
    - Need to make TTreePerfStats flexible and thread safe.

# Discussions

- Strong interest in new Parallel Merger
  - Caveat: how to deal with luminosity blocks is still unresolved.

- Oddities in the results presented by LCHb and by ATLAS (multi sites tests)
  - Need to be investigated and/or re-measured.
  - LHCb issues: probably due LHCb and/or too small of a cluster size.
  - ATLAS tests: probably due to temporary change in ROOT/Athena releases.
  - Understand why ATLAS reading is seemingly 30% faster when not split.

# Conclusion

- Very Good participation and collaborations.
  - Active participation from both CMS and ATLAS.
- Next ROOT I/O workshop in February
  - Exact date to be announced soon.