Publications relating to LHCb computing

This page is being populated, if you find items missing please add them.

This page contains lists of presentations and conference proceedings related to LHCb computing, as well as links to related material.

Computing project

Notes concerning overall project organisation and planning, including resources requests, can be found in the NCB pages.

Core Software

Proceedings of IEEE NSS MIC 2015, 31 October - 7 November 2015, San Diego, California

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Proceedings of CHEP2015, 13 - 17 April 2015, Okinawa, Japan

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<tbody>
<tr>
<td>J. Phys.: Conf. Ser. 664 062008</td>
<td>poster</td>
<td>LHCb Build and Deployment Infrastructure for RUNII</td>
<td>B.Couturier and M.Clemencic</td>
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<tr>
<td>J. Phys.: Conf. Ser. 664 062007</td>
<td>poster</td>
<td>Implementing a Domain Specific Language to configure and run LHCb Continuous Integration builds</td>
<td>M.Clemencic and B.Couturier</td>
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<tr>
<td>J. Phys.: Conf. Ser. 664 072012</td>
<td>poster</td>
<td>Using DD4Hep through Gaudi for new experiments and LHCb</td>
<td>M.Clemencic and A.Karachaliou</td>
</tr>
<tr>
<td>J. Phys.: Conf. Ser. 664 062025</td>
<td>poster</td>
<td>Improvements to the User Interface for LHCb's Software continuous integration system</td>
<td>M.Clemencic, S.Qirjazi and B.Couturier</td>
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Proceedings of CHEP2013, 14 - 18 October 2013, Amsterdam

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</table>
LHCb-TALK-2013-350 Systematic profiling to monitor and specify the software refactoring process of the LHCb experiment

Poster-2013-326 A GPU offloading mechanism for LHCb

Poster-2013-328 A New Nightly Build System for LHCb

Poster-2013-332 Preparing the Gaudi-Framework and the DIRAC-WMS for Multicore Job Submission


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<tr>
<td>LHCb-TALK-2013-328</td>
<td>Evaluating moldability of LHCb jobs for multicore job submission</td>
<td>N.Rauschmayr</td>
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</tbody>
</table>

Proceedings of 2013 International Conference on Computational Science Barcelona, Spain, 5 - 7 Jun 2013

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<tr>
<td>Procedia Computer Science: Volume 18, 2013, Pages 2233 - 2240</td>
<td>Evaluation of x32-ABI in the Context of LHC Applications</td>
<td>N.Rauschmayr, A.Streit</td>
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Proceedings of IEEE NSS MIC 2012

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Proceedings of CHEP2012, 21 - 25 May 2012, New York, USA

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Proceedings of CHEP2010, 18 - 22 October 2010, Taipei, Taiwan

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<td>LHCb-PROC-2011-015</td>
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<td>J. Phys.: Conf. Ser. 331 042006</td>
<td>LHCb-TALK-2010-158</td>
<td>Migration of the Gaudi and LHCb software repositories from CVS to Subversion</td>
<td>M.Clemencic and H.Degaudenzi</td>
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**Proceedings of CHEP2009, 21–27 March 2009, Prague, Czech Republic**

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**Distributed Computing**

**Proceedings of CHEP2015, 13–17 April 2015, Okinawa, Japan**

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<tr>
<td></td>
<td>CERN-POSTER-2015-487</td>
<td>Data Management System of the DIRAC Project</td>
<td>CH, PC, AT</td>
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<tr>
<td></td>
<td>LHCb-TALK-2015-061</td>
<td>The DIRAC Data Management System (lightning talk)</td>
<td>CH, PC</td>
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<tr>
<td></td>
<td>LHCb-TALK-2015-062</td>
<td>Federating LHCb datasets using the Dirac File Catalog</td>
<td>CH, PC, MF, AT</td>
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<td>LHCb-PROC-2015-015</td>
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<td>LHCb-TALK-2015-076</td>
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<tr>
<td>J. Phys.: Conf. Ser. 513 032096</td>
<td></td>
<td>DIRAC Distributed Computing Services</td>
<td>A.Tsaregorodtsev</td>
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### Proceedings of IEEE NSS MIC 2012

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<tr>
<td>LHCb-TALK-2012-304</td>
<td>How the Monte Carlo production of a wide variety of different samples is centrally handled in the LHCb experiment</td>
<td>G.Corti</td>
<td>October 2012</td>
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### Proceedings of CHEP2012, 21–25 May 2012, New York, USA

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**Analysis of DIRAC’s behavior using model checking with process algebra**


**LHCbDirac: distributed computing in LHCb**


**Grid administration, towards an autonomic approach**

**M. Ubeda García**, F. Stagni, A. Tsaregorodtsev, P. Charpentier and V. Bernardoff

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**LHCb distributed computing operations**

*F. Stagni et al* 2012

**The LHCb DIRAC-based production and data management operations systems**

*F. Stagni et al* 2012

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**Optimization of Large Scale HEP Data Analysis in LHCb**

*J. Remenska*, R. Aaij, G. Raven, M. Merk, J. Templon and R. J. Bril

**Reinforcing user data analysis with Ganga in the LHC era: scalability, monitoring and user-support**


**A policy system for Grid Management and Monitoring**

*F. Stagni* and R. Santinelli

**Distributed analysis at LHCb**

*M. Williams*, U. Egede and S. Paterson

**The LHCb Computing Model and Real Data**

*P. Charpentier*

**The LHCb Experience on the Grid from the DIRAC**

*A. Casajús*, R. Graciani, A. Puig and R. Vázquez
Accounting Data

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<tr>
<td>LHCb-TALK-2010-152</td>
<td>LHCb DIRAC Data Production System</td>
<td>A.C. Smith et al.</td>
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Proceedings of CHEP2009, 21–27 March 2009, Prague, Czech Republic

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<tr>
<td>J. Phys.: Conf. Ser. 219</td>
<td>022020</td>
<td>Event reconstruction in the LHCb Online cluster</td>
<td>A. Puig Navarro and M. Frank</td>
</tr>
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</table>

Physics Software

- Presentations and proceedings relating to LHCb simulation are listed here
- Talks relating to the LHCb High Level Trigger are listed here

Proceedings of CHEP2015, 13–17 April 2015, Okinawa, Japan

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<tr>
<td>LHCb-PROC-2015-012</td>
<td>poster</td>
<td>Event Index — an LHCb Event Search System</td>
<td>A. Ustyuzhanin, A. Artemov, N. Kazeev and A. Redkin</td>
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<td>LHCb-PROC-2015-011</td>
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<tr>
<td>J. Phys.: Conf.</td>
<td>CHEP2012</td>
<td>Swimming, a data driven</td>
<td>V. V. Gligorov, R. Aaij, M. Cattaneo</td>
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</table>

**Theses**

- *Adaptive Scheduling Applied to Non-Deterministic Networks of Heterogeneous Tasks for Peak Throughput in Concurrent Gaudi*, Illya Shapoval, CERN-THESIS-2016-028
- *Bringing Model Checking Closer to Practical Software Engineering*, Daniela Remenska, CERN-THESIS-2010-324
- *Optimisation of LHCb Applications for Multi- and Manycore Job Submission*, Nathalie Raushmayr, CERN-THESIS-2014-242

**Detector papers**


**Old stuff**

A very old list of publications can be found here

-- MarcoCattaneo - 8-Jan-2016

This topic: LHCb > LHCbComputingPublications
Topic revision: r38 - 2016-05-07 - MarcoCattaneo