

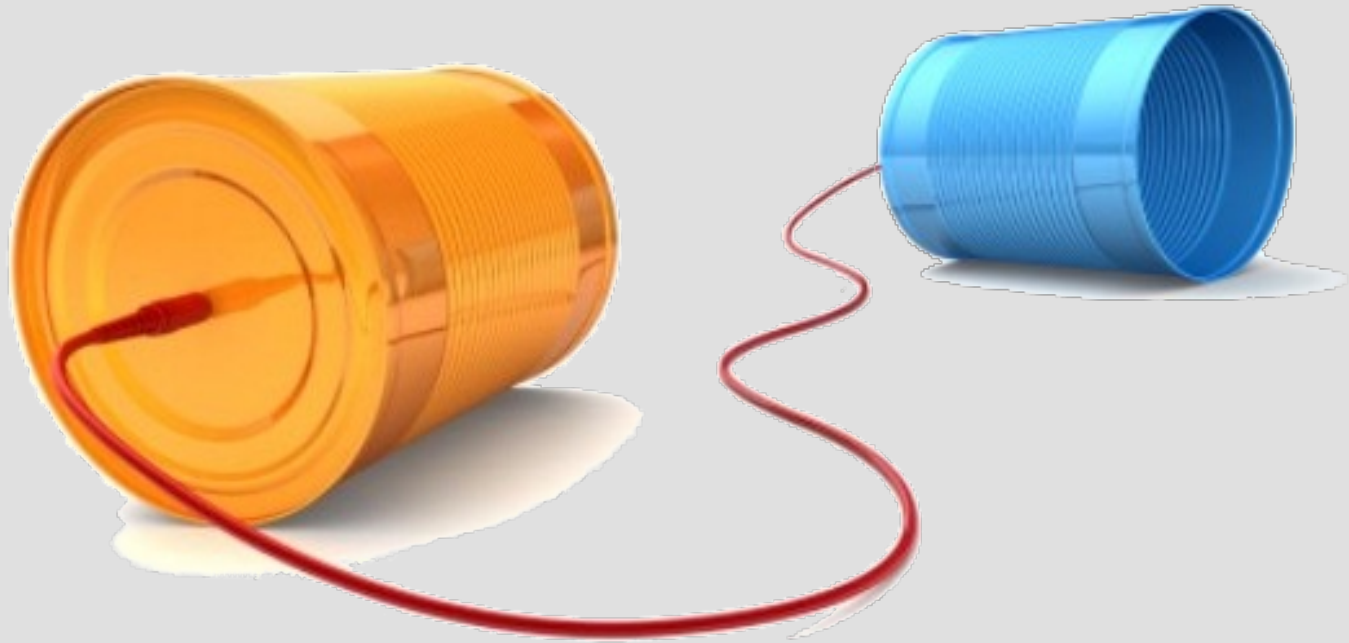
Information sharing

Adriana Telesca

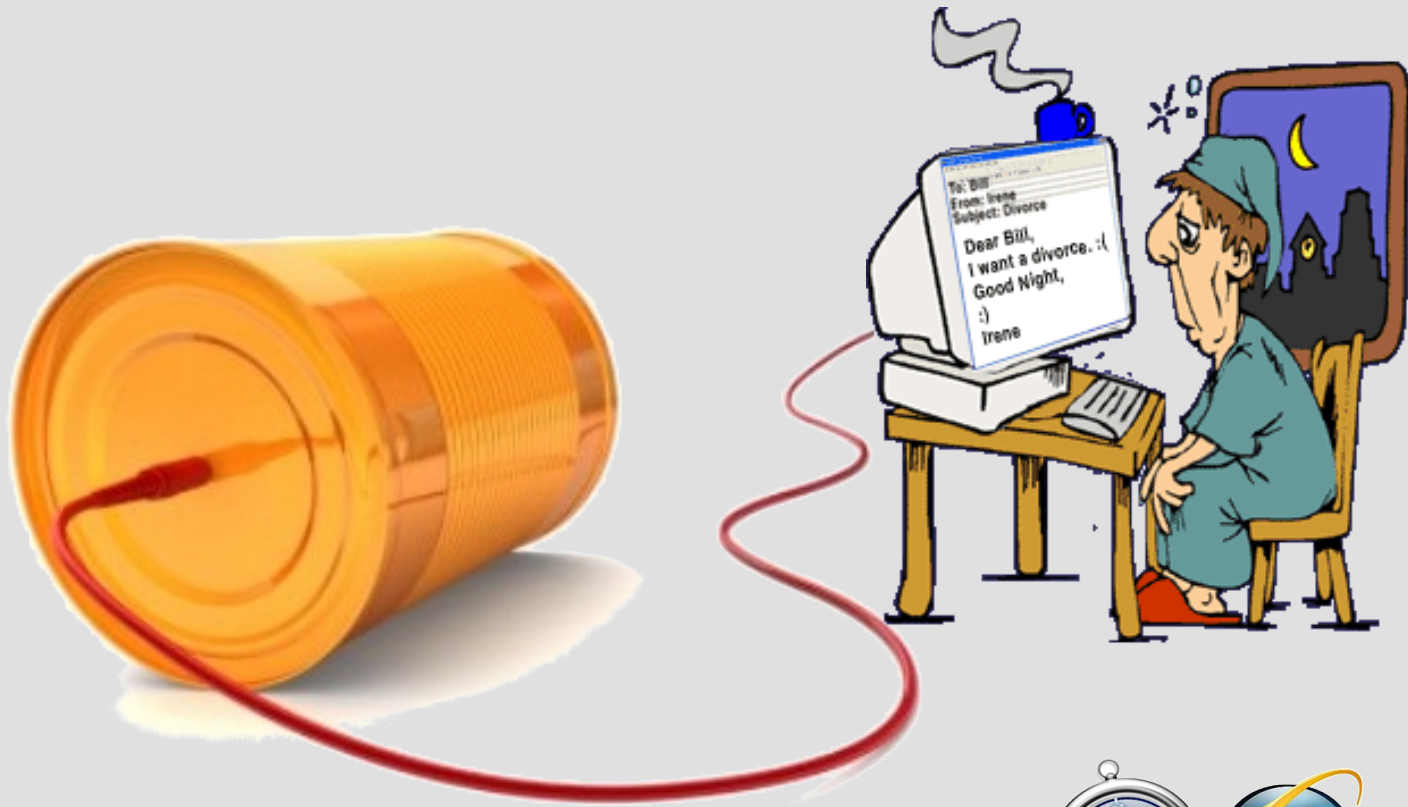
on behalf of ALICE, ATLAS, CMS and LHCb

14th March 2013

DAQ@LHC workshop



information sharing

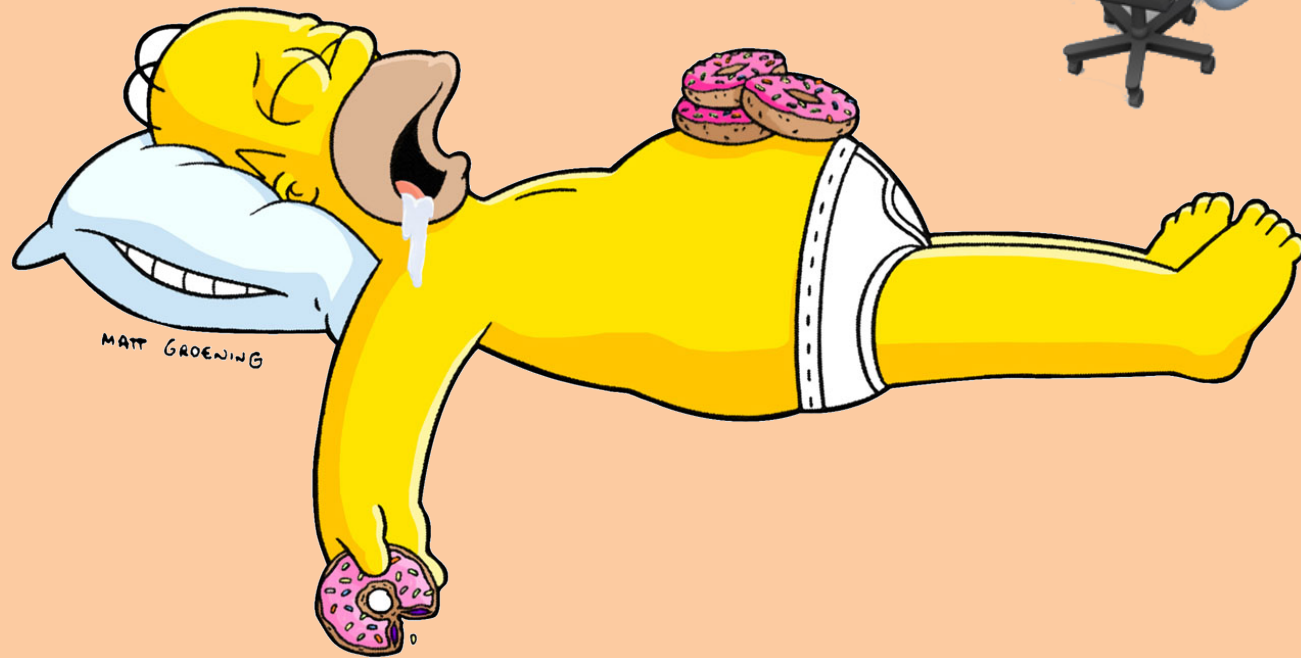


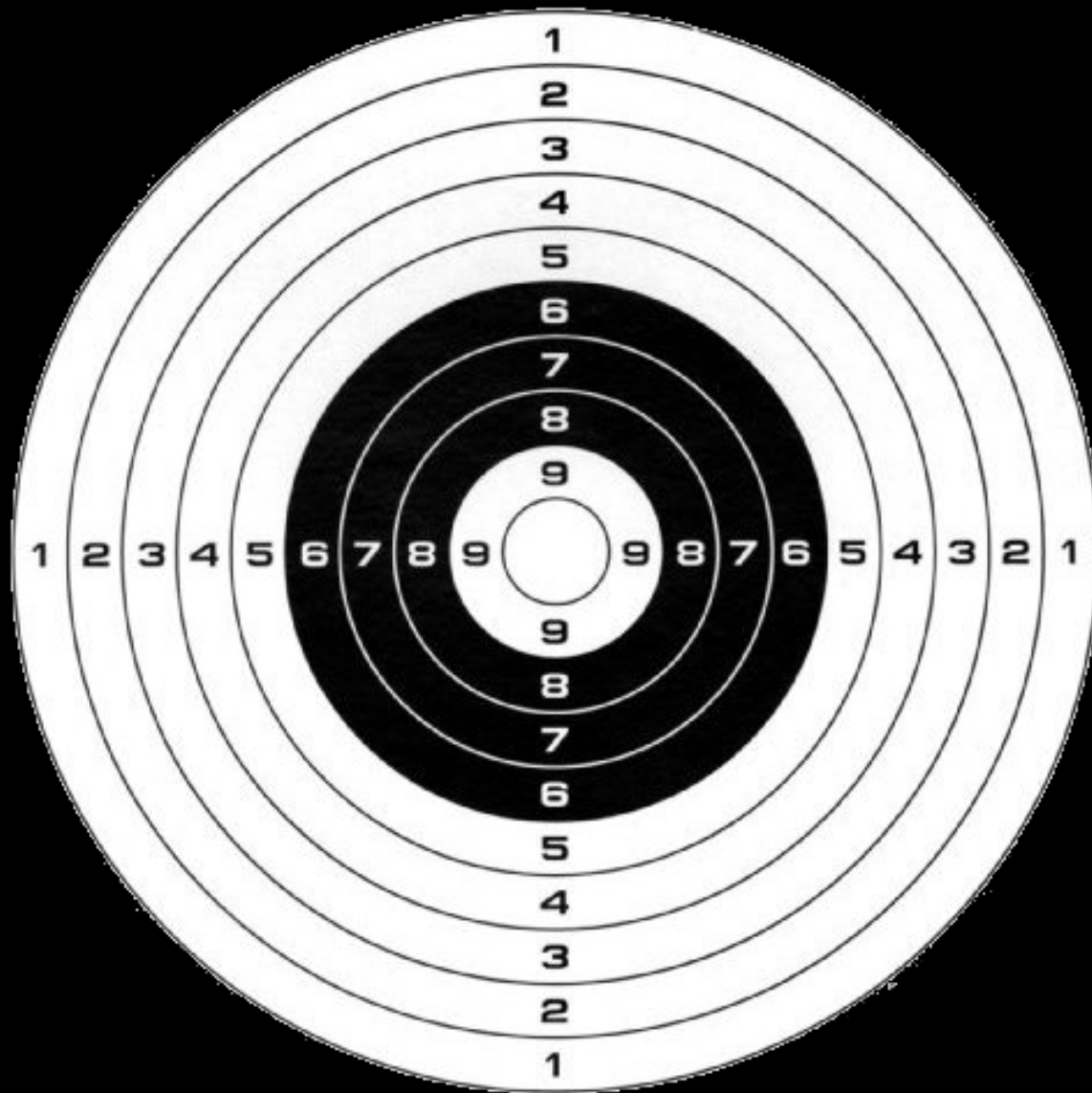
information sharing



pros

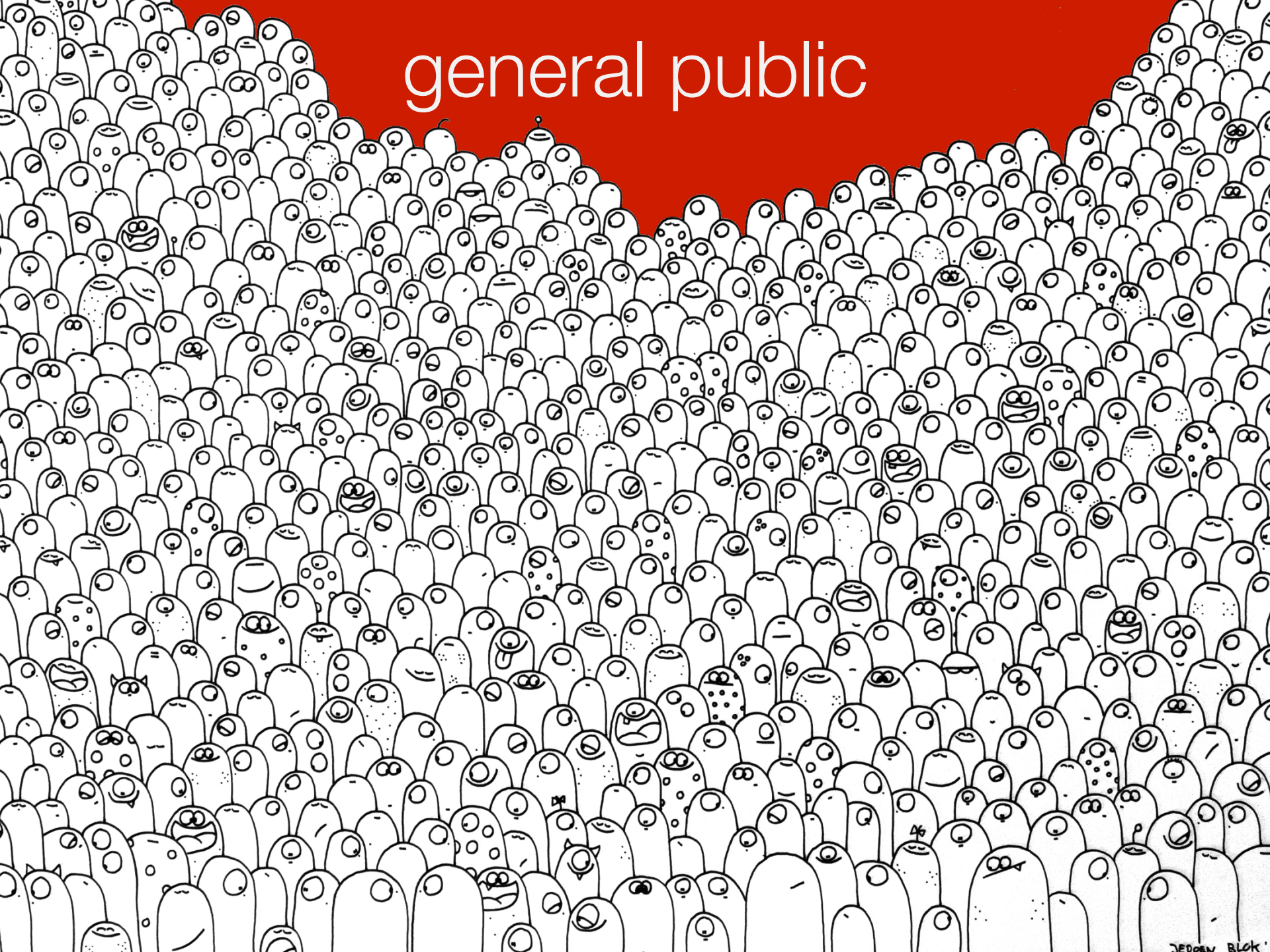
cons





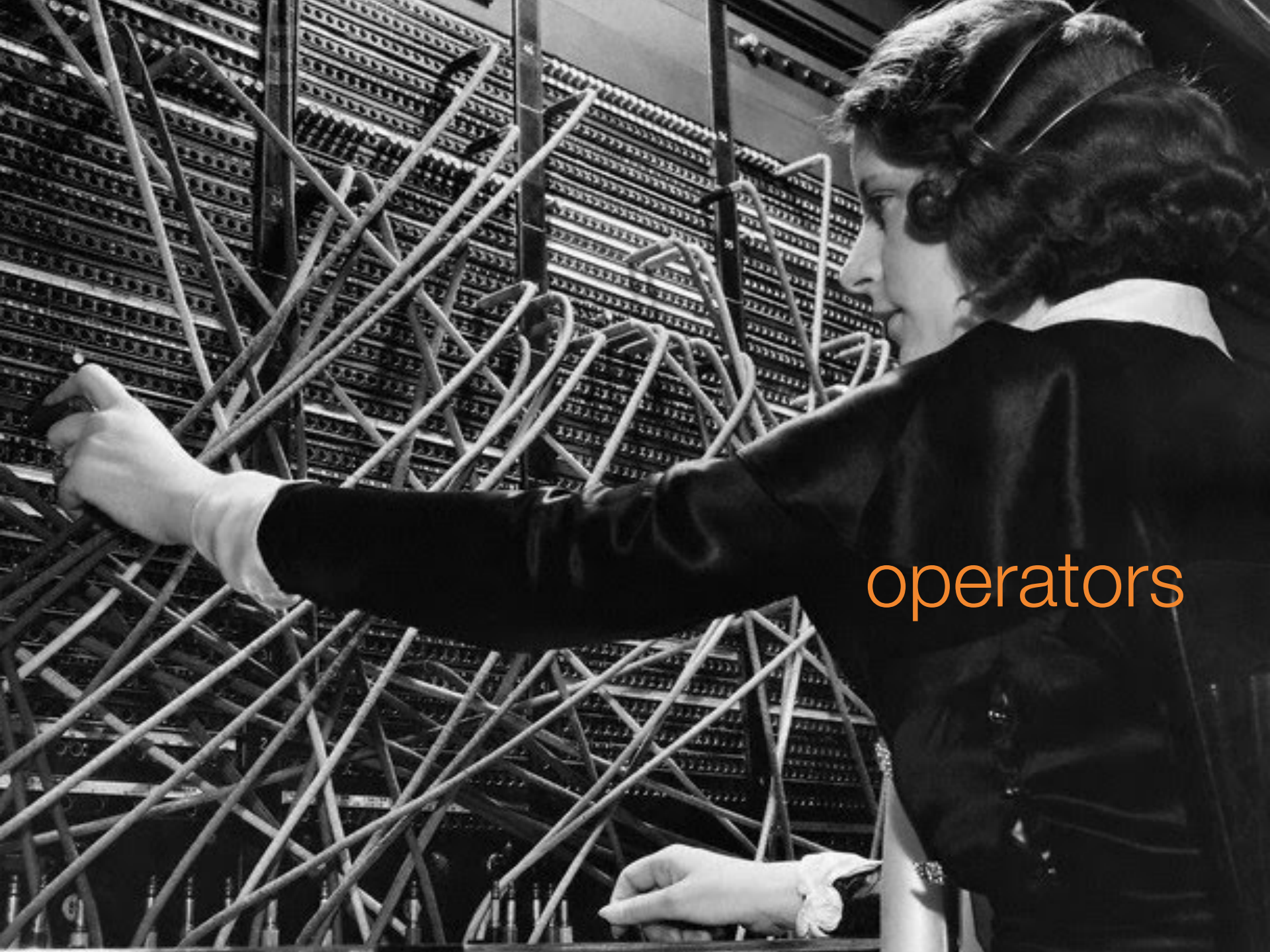
targets

general public





the experiment collaboration

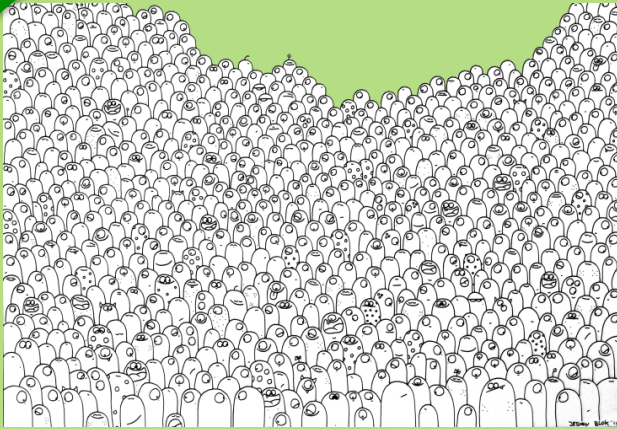


operators

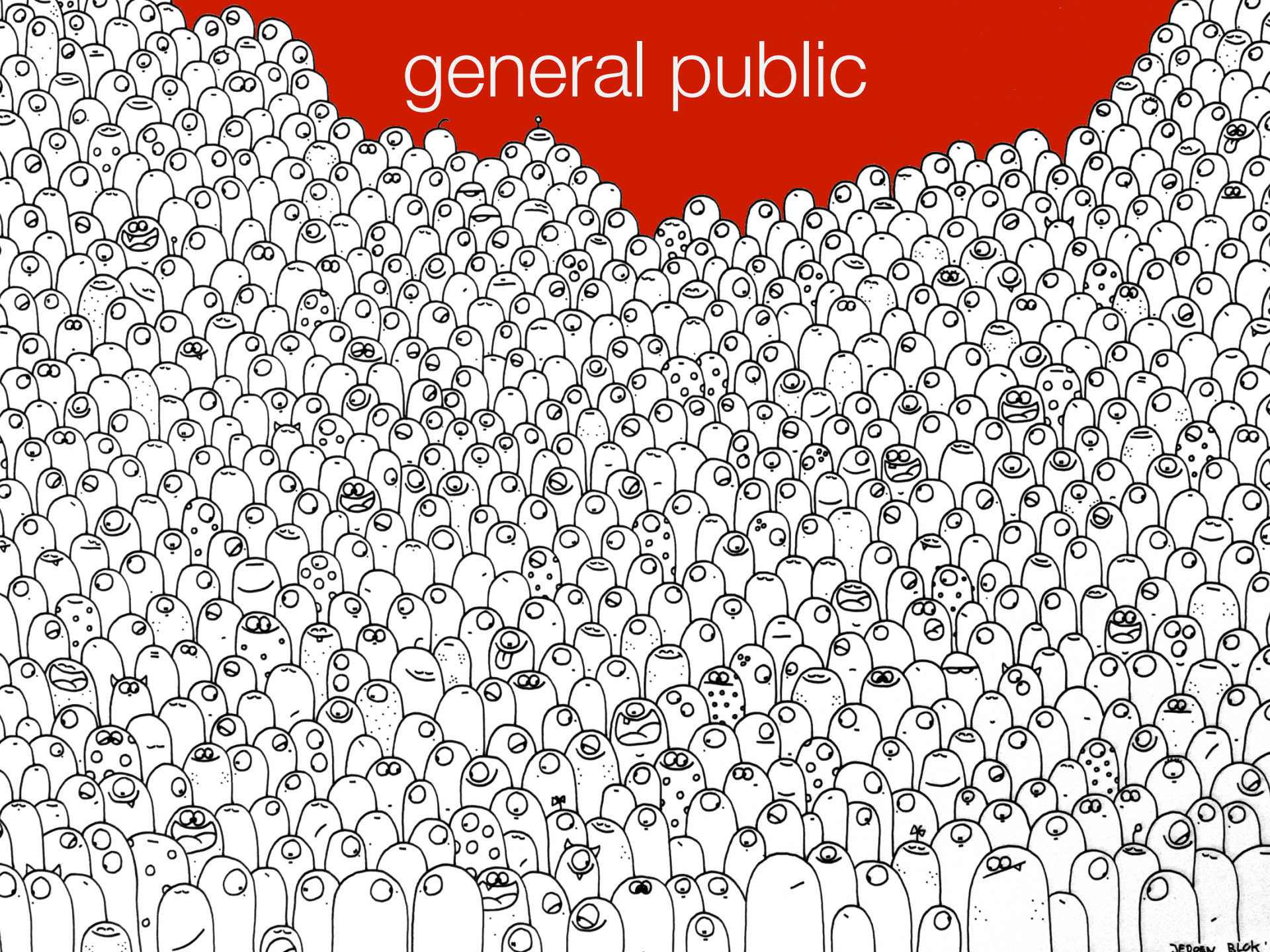
experts

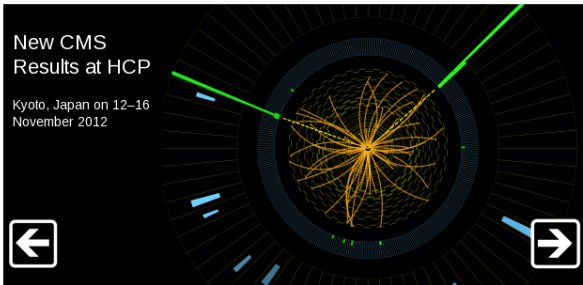


targets



general public





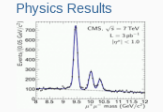
New CMS Results at HCP

Kyoto, Japan on 12-16 November 2012

Introducing CMS

- CMS observes unexplained particle states
- New CMS Results at HCP
- Observation of a New Particle with a Mass of 125 GeV
- Physics Results
- CMS Detector
- About CMS

- ▶ CMS Live
- ▶ CMS Links
- ▶ Multimedia



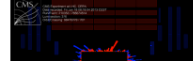
General News

First collisions of pPb run with stable beams
2013.01.20, by Maria Chamizo Llatas



Physics News

Colliding different particle species: the LHC's proton-lead run
2013.01.18, by Achintya Rao



In the Media

Higgs and the holy grail of physics
2012.07.08, CNN

Physicists Find Elusive Particle Seen as Key to Universe
2012.07.05, New York Times

Large Hadron Collider beauty experiment
European Organization for Nuclear Research

Home | Sitemap | Contact us | Search

Physics | Detector | Data collection | Collaboration | Installation

Welcome to the LHCb experiment

Follow LHCb on Twitter >

End of 2013 data taking period at #LHCb at #LHC at #CERN, see <http://it.co/TXqZ53t8> Thu 14 Feb

#LHCb at #LHC at #CERN has just observed first 2013 collisions of proton with lead ions, see <http://it.co/TXqZ53t8> Sun 20 Jan

2 fb-1 luminosity has just been recorded by #LHCb experiment at #LHC at #CERN this year Mon 26 Nov

#LHCb say "THANKS!" to #LHC operators for delivering them 2 fb-1 (hundred million million visible collisions) in 2012 <http://it.co/nd.C1zKs> Thu 15 Nov

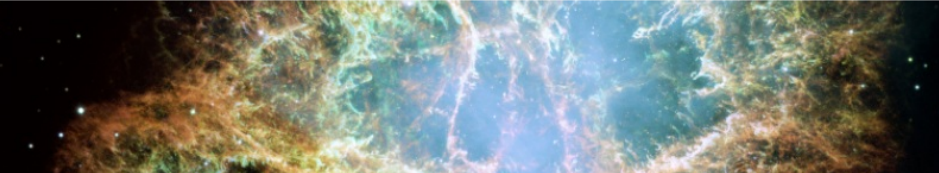
Follow LHCb on Google+

Quantum Diaries [blogs](#) about LHCb

Take the LHCb Virtual Tour

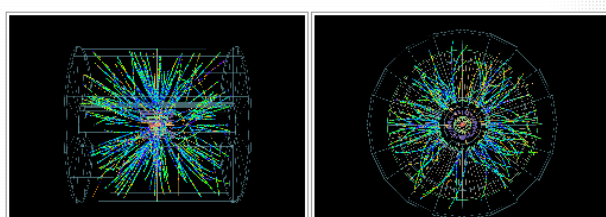
QuickTime / Flash
LHC and LHCb Status Displays
LHCb Event Display
LHCb event display decoded

LHCb delivered and recorded luminosity in 2.4 $2.21 / fb^{-1}$



Welcome to ALICE, a journey to the beginning of the Universe

The proton-lead run



- Event Displays
- For the Press
- Video Channel
- Virtual Tour
- Photo Gallery
- Press Articles
- Industrial Awards

ATLAS and the Higgs

Finding the Higgs boson will change our understanding of the world. ATLAS observed a new particle in July this year, which in many ways is consistent with the Higgs boson as predicted by the Standard Model. Further study will show if it really is the particle that physicists have been seeking for nearly half a century. To find out more, [click here](#).

2012: A Year for Science - A Year for Discovery

Amazing, incredible, emotional. These are uncommon words for summarizing the annual accomplishments of a particle physics experiment. Yet 2012 has been a fantastically uncommon year for ATLAS, one of the main experiments at CERN: marvellous machine performance, numerous and interesting physics results, plenty of interactions with students and general public, and - last but not least - a major discovery! [More...](#)

ATLAS RUN STATUS
TOTAL LUMINOSITIES

- 27.03 fb⁻¹ PROTON - PROTON
- 29.65 nb⁻¹ PROTON - LEAD
- 167.4 pb⁻¹ LEAD - LEAD

LHC shut down for upgrades. Restart April 2015
More info, can be found [here](#).

Discovery Quest
ATLAS eTours

About ATLAS

Mapping the Secrets of the Universe
ATLAS is a particle physics experiment at the Large Hadron Collider at CERN. The ATLAS detector is searching for new discoveries in the head-on collisions of protons of extraordinarily high energy. ATLAS will learn about the basic forces that have shaped our Universe since the beginning of time, and that

Higgs Multimedia Material

A candidate event for a Higgs decay to 2 electrons and 2 muons. [More...](#) (Image h-1)

ATLAS EXPERIMENT
<http://atlas.cern>
Event: 201210
Date: 2012-06-28
Time: 11:47:47 CEST



the experiment collaboration

Experiment status
Experiment statistics
Efficiency
Run statistics
Run status
Sub-detectors status

LHC status
Beam information
Fills information

DQM plots
DQM information

Logs
Shifts
Operation status
Interventions

Partition ATLAS

TTC Partitions: Pix Barrel - Pix Disk - Pix B-Layer - SCT BA - SCT BC - SCT EA - SCT EC - TRT BA - TRT BC - TRT EA - TRT EC - LAr EMBA - LAr EMBC - LAr EMECA - LAr EMECC - LAr HECA - LAr HECC - LAr FCALA - LAr FCALC - TII BA - TII BC - TII EA - TII EC - MDT BA - MDT BC - MDT EA - MDT EC - RPC BA - RPC BC - TGC EA - TGC EC - CSC EA - CSC EC - L1 calo preprocessor - L1 calo cluster DAQ - L1 calo cluster Rol - L1 calo Jet/E DAQ - L1 calo Jet/E Rol - MUCTPI - CTP - L2SV - SFI - SFO - LVL2 - EF - BCM - Lucid - ZDC

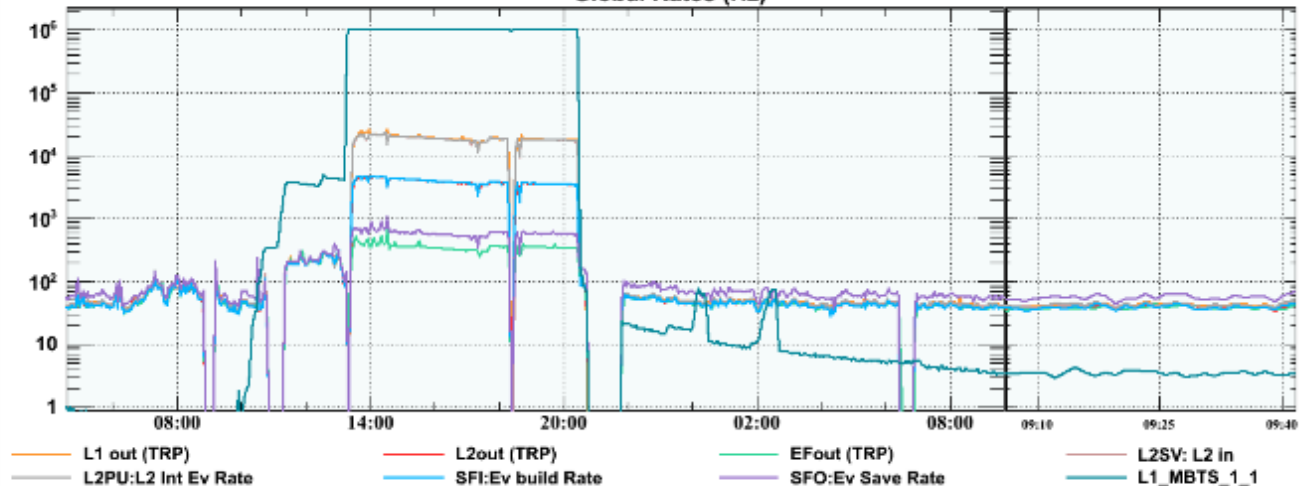
[Check today's program here!](#) [Data taking efficiency](#)
[Other active partitions can be seen here.](#)

Run Info		Run Statistics		Trigger Info		Beam Info	
Run State	RUNNING	RunTime	11:54:57	Master & Prescale Keys	920, 2284, 2281	Beam Mode	INJECTION PROBE BEAM
Run Tag	data10_7TeV	Luminosity Block	367	L1 Bunch Group	106	Beam 1 Status	Present & Safe
Run Type	Physics	LB changes every	120 seconds	Simple Deadtime	5	Beam 2 Status	Present & Safe
Run Number	166150	Average Event Size [MB]	1.408	Complex Deadtime	7/415	Stable Beams	FALSE
Run Mode	Standby	Throughput to Disk [MB/s]	62.0425	HLT Release Version	15.6.9.28	Beam Energy	450.12

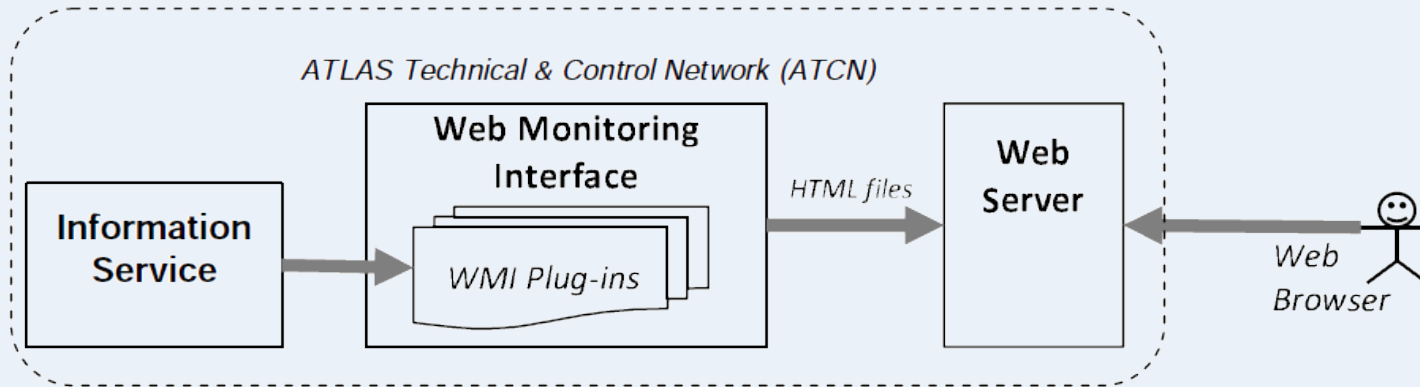
Busy Status

CTPMI	CTPCORE	CTPOUT 12	CTPOUT 13	CTPOUT 14	CTPOUT 15
VME 0%	Backplane 1.192%	CTP(LUCID) 0%	BCM 0%	LHCf OUT	CSC 0%
ECR 0.041%	Result 1.192%	Pixel 0%	ZDC 0%	MDT B 0%	ALFA OUT
Veto 0		SCT 0%	LAr H/F 0%	MDT EC 0%	TGC 0%
Veto 1		TRT 1.152%	LAr EMEC 0%	Tile EB 0%	RPC 0%
Backplane 1.192%		L1Calo 0%	LAr EMB 0%	Tile LB 0%	MUCTPI 0%

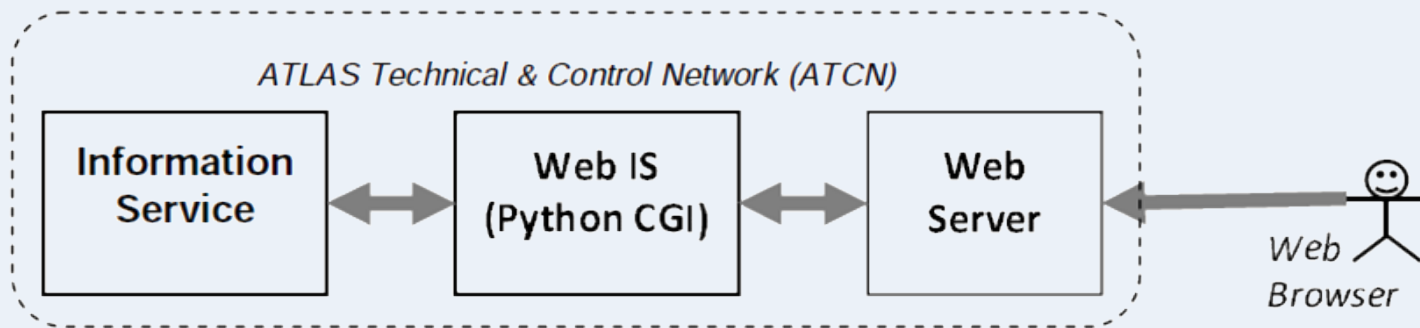
Global Rates (Hz)



general public remote monitoring



expert remote monitoring



- HTML
- HTTP
- Python
- ROOT
- Spring
- Django

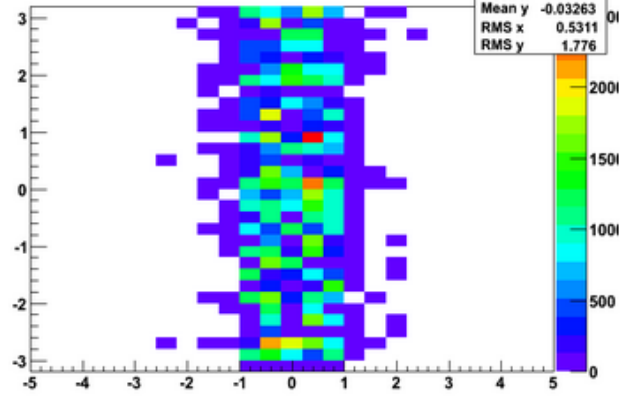
architecture

ATLAS: **RUNNING**

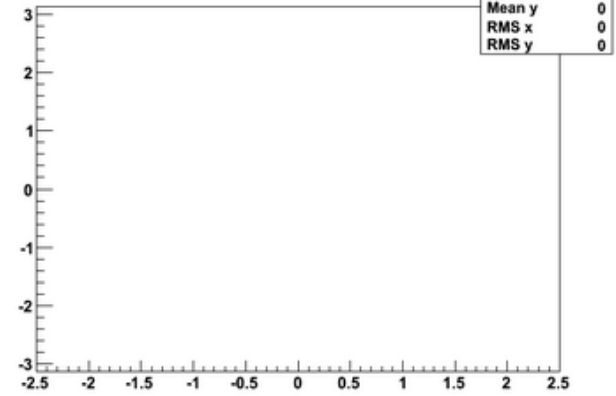
Streaming L1_checks L2_errors EF_errors L1_RoIs_and_thresholds **RoIs_eta_phi** Rejection

HLTInfrastructure
HLTSteering
HLTSteeringExpert
HLTTiming
HLTPhysicsBeam
HLTPhysicsBjet
HLTPhysicsBPhysics
HLTPhysicsEgamma
HLTPhysicsID
HLTPhysicsJets
HLTPhysicsMET
HLTPhysicsMinBias
HLTPhysicsMuon
HLTPhysicsTau
HLTPhysicsCalo
L1CaloErrorOverview
L1CaloInput
L1CaloOutput
L1CtpTriggerTimings
L1CtpBunchStatus
L1MuonRpcDataIntegrity
L1MuonRpcTriggerThreshold
L1MuonRpcTriggerHitPerSector
Lumi
Rates
WTRP
Browser

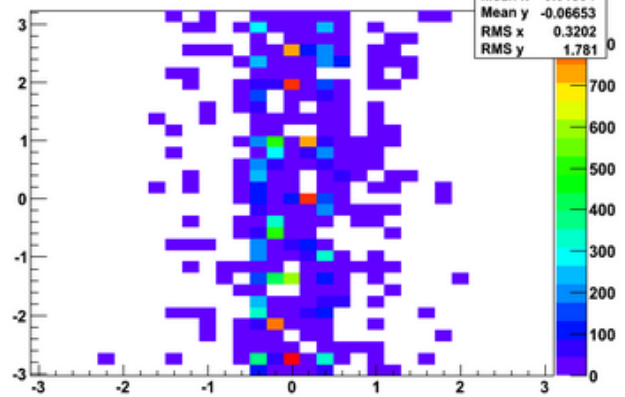
L1 Rols phi vs eta L2



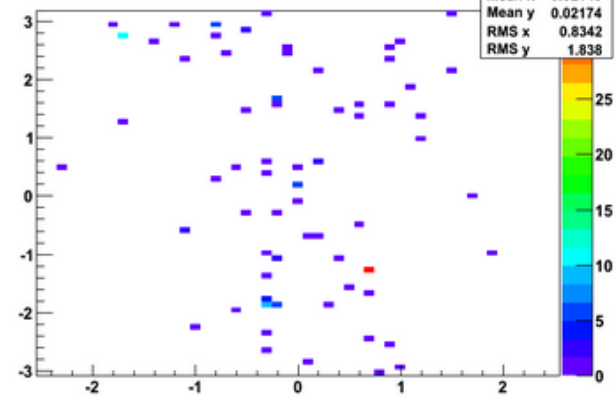
phi vs eta for all L1 MU Rols L2



phi vs eta for all L1 jet Rols L2



phi vs eta for all L1 EM Rols L2





CMS Web Based Monitoring *online*



Subdetectors WBM

[ECALSummary](#)
[DTSummary](#)
[RPCSummary](#)
[HCALHome](#)
[CSCSummary](#)
[BRMSnapshots](#)
[BCM1F Bunch Info](#)
[TriggerModes](#)
[TrackerTools](#)
[PixelHome](#)
[S³ ScreenSnapShots](#)

Core Services

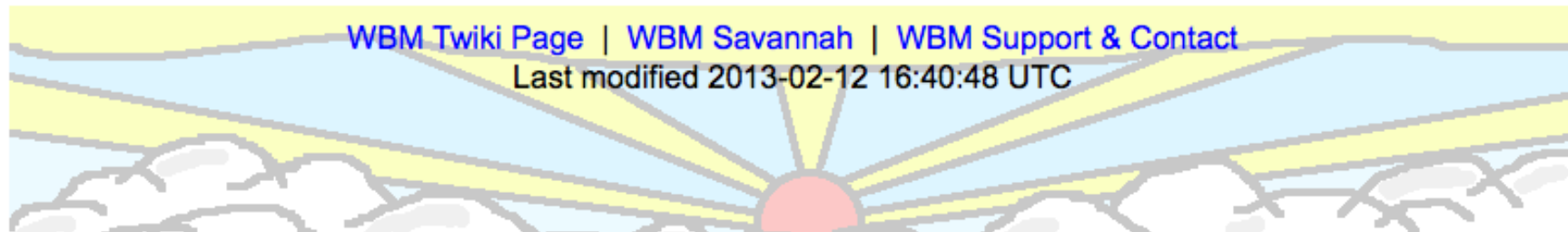
[RunSummary \[24h\] \[24h&1+trig\]](#)
[RunTimeSummary \[LHC Fills\] Deadtime](#)
[FillReport \[Latest Fill\] DataSummary](#)
[LumiScalers | Automatic Fill eMails](#)
[Online DataQualityLogger \$\beta\$](#)
[TriggerHistory | TriggerRunListing](#)
[TriggerRates \[Pre-DT L1\] \[Post-DT L1\] \[HLT\]](#)
[LastValue | ConditionBrowser \[iPlot\]](#)
[MagnetHistory | CurrentBunches | BunchFill](#)
[LhcMonitor | LHCStatusDisplay | BLM | BPM | DIP](#)
[LhcCollimators | AbortGaps](#)
[ShiftAccountingTool](#)
[PageZero | CMS Page 1](#)

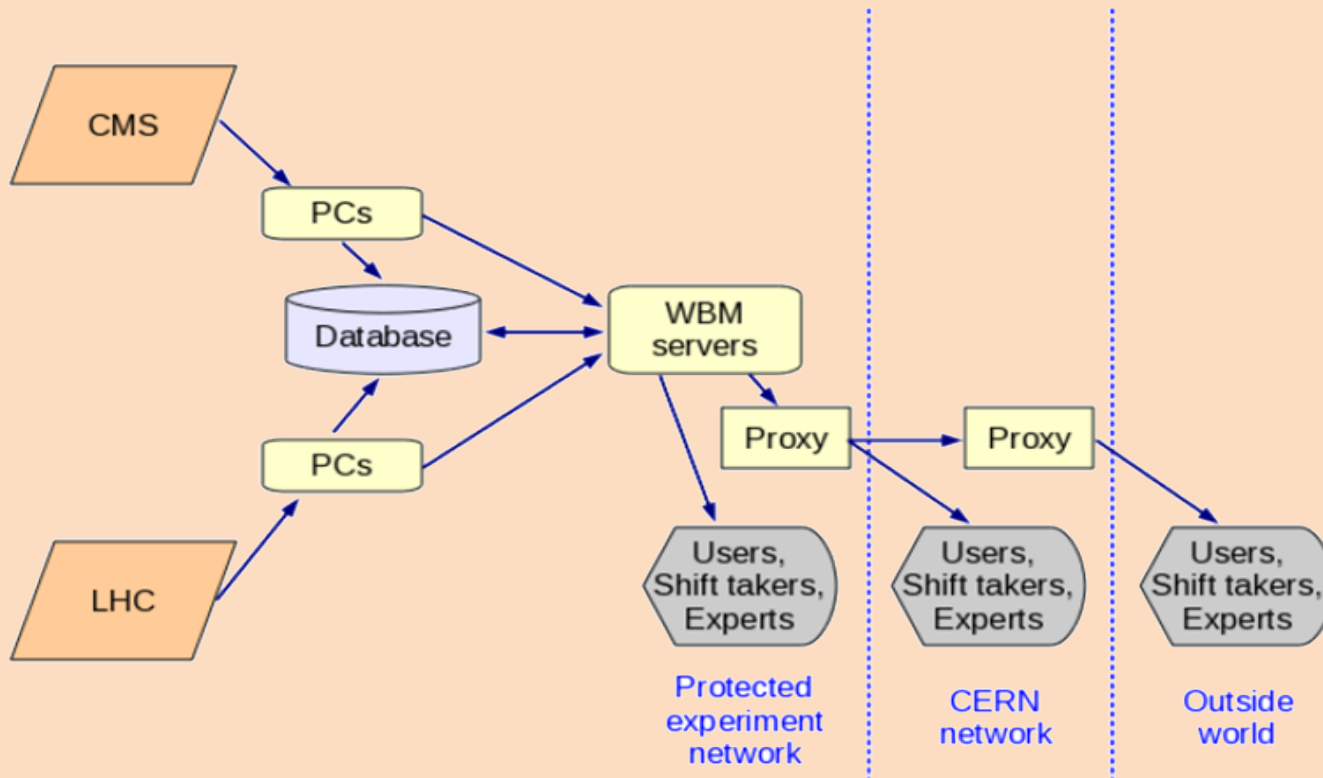
Links

[DQM Run Registry](#)
[Online DQM GUI](#)
[FNAL ROC](#)
[Commissioning & Run Coordination](#)
[CMS Twiki: OnlineWB TriDAS](#)
[CMS Online](#)
[Shift eLog](#)
[Snappy eLogViewer](#)
[LHC Page 1](#)

[WBM Twiki Page](#) | [WBM Savannah](#) | [WBM Support & Contact](#)

Last modified 2013-02-12 16:40:48 UTC





architecture

- Apache
- Java Servlet
- ROOT
- SQL
- HTML/5
- JFreeChart
- XML



CMS Status
RUNNING

LHC Status
STABLE

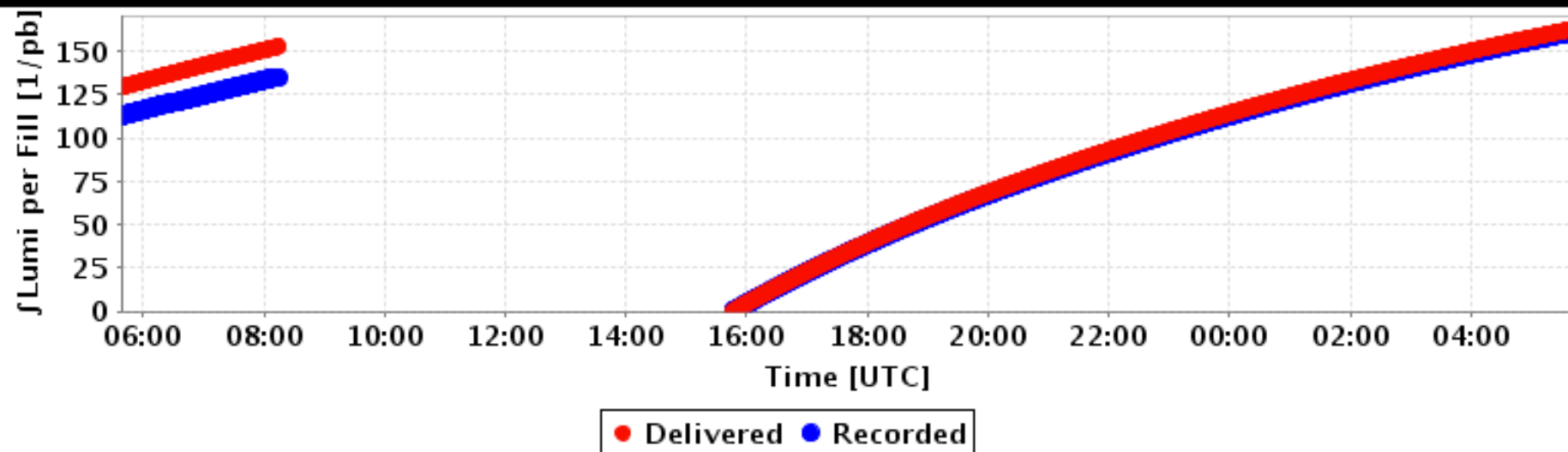
Beam Energy
3999 GeV

Intensity

Beam1: 1.4×10^{14}
Beam2: 1.4×10^{14}



History of Data-taking with Stable Beams for Last 24 Hours



CMS Comments Tue 24-07-2012 15:50:03 UTC

Physics runs

LHC Page1 Comments Tue 24-07-2012 19:43:26 UTC

fill for physics

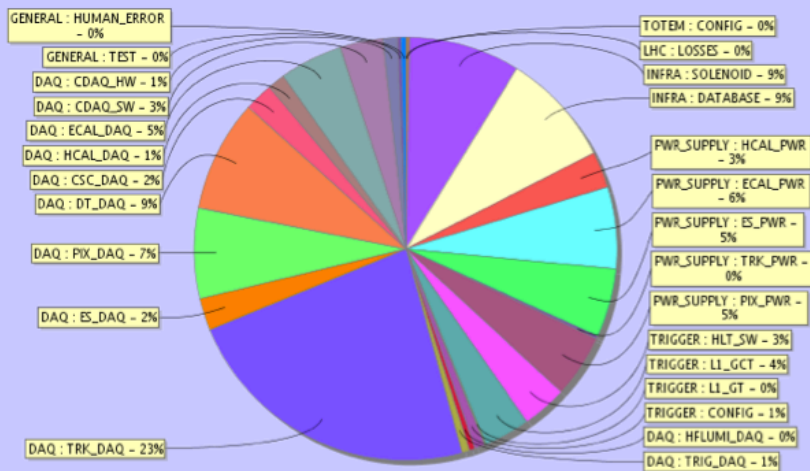
Sub-System DAQ / DCS

CSC	IN	ON
DT	IN	ON
ECAL	IN	ON
ES	IN	ON
HCAL	IN	ON
PIXEL	IN	ON
RPC	IN	ON
TRACKER	IN	ON
TRG	IN	
DAQ	IN	
DQM	IN	
SCAL	IN	
HFLUMI	IN	

Run/Trigger/DAQ Status

Fill Number	2875
Run Number	199608
LumiSection	2198
Physics Bit Set	ON
Magnet [T]	3.801
L1 Rate [Hz]	26079
L1 Triggers	2059478893
Instant Lumi[E30]	1995.98
∫Lumi Rec[1/pb]	160.85
Tier0 Transfer	ON

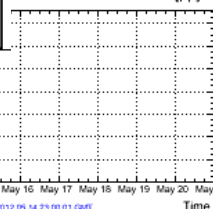
Lumi lost by categories



- TOTEM : CONFIG - 0.36175537
- LHC : LOSSES - 314.33
- INFRA : SOLENOID - 9340.73
- INFRA : DATABASE - 9571.56
- PWR_SUPPLY : HCAL_PWR - 3066.42
- PWR_SUPPLY : ECAL_PWR - 6822.45
- PWR_SUPPLY : ES_PWR - 5802.29
- PWR_SUPPLY : TRK_PWR - 255.60
- PWR_SUPPLY : PIX_PWR - 5280.23
- TRIGGER : HLT_SW - 3735.99
- TRIGGER : LI_GCT - 3881.48
- TRIGGER : LI_GT - 148.07
- TRIGGER : CONFIG - 882.42
- DAQ : HFLUMI_DAQ - 440.04
- DAQ : TRIG_DAQ - 659.11
- DAQ : TRK_DAQ - 25291.61
- DAQ : ES_DAQ - 2695.14
- DAQ : PIX_DAQ - 7597.67
- DAQ : DT_DAQ - 9389.16
- DAQ : CSC_DAQ - 2392.14
- DAQ : HCAL_DAQ - 1433.07
- DAQ : ECAL_DAQ - 5334.40
- DAQ : CDAQ_SW - 3602.70
- DAQ : CDAQ_HW - 1192.61
- GENERAL : TEST - 266.02
- GENERAL : HUMAN_ERROR - 397.38

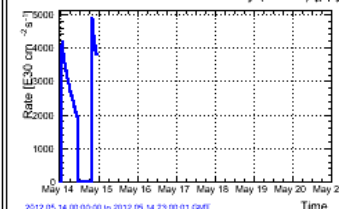
Integrated luminosity

Delivered and Recorded Lumi [pp]



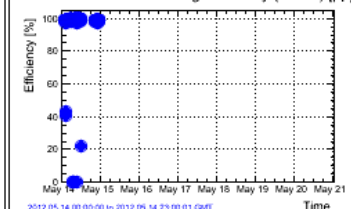
Instantaneous luminosity

Week 20 : CMS HF Inst. Luminosity (online) [pp]



Efficiency

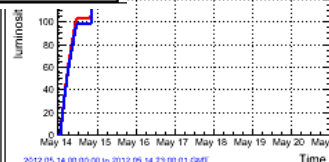
Week 20 : CMS Datataking Efficiency (online) [pp]



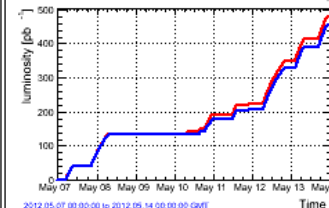
Week 19

Mon 14 May
Fills: 2627, 2628
Runs:

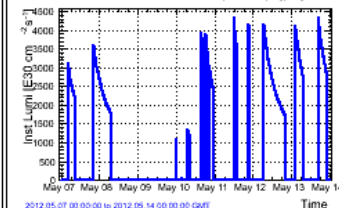
Delivered Lumi [pb ⁻¹]	143.84	
Recorded Lumi [pb ⁻¹]	138.31	96%



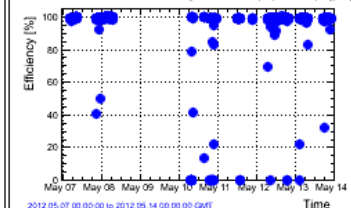
Week19 : LHC Delivered and Recorded Lumi. [pp]



Week19 : CMS HF Inst. Lumi. (online). [pp]



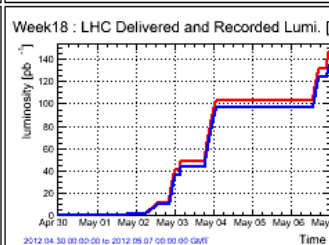
Week19 : CMS Datataking Efficiency (online). [pp]



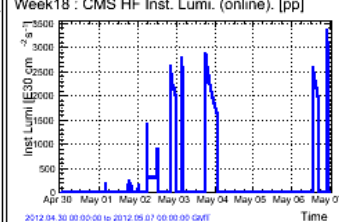
Week 18

Mon 30 Apr - Sun 6 May
Fills: 2574, 2576, 2580, 2583, 2584, 2587, 2590, 2591
Runs:

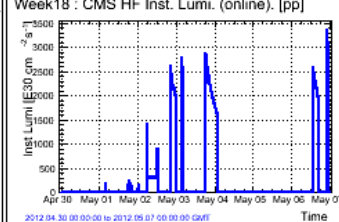
Peak Lumi [cm ⁻² s ⁻¹]	3598.82 × 10 ³⁰	
Delivered Lumi [pb ⁻¹]	280.94	
Recorded Lumi [pb ⁻¹]	265.88	94%



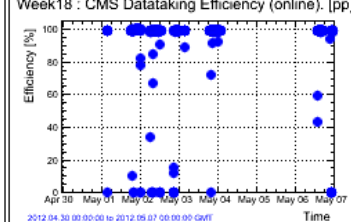
Week18 : LHC Delivered and Recorded Lumi. [pp]



Week18 : CMS HF Inst. Lumi. (online). [pp]



Week18 : CMS Datataking Efficiency (online). [pp]





ALICE
 Print tab | Print all
 A JOURNEY OF DISCOVERY

Run Quick Access: FI

Run Details - 197348
 (09/02/2013 21:22:49 - 09/02/2013 23:16:57)

Run Browsing: 197348 Run Quick Access: Actions

- General Info | **Trigger Info** | DAQ Info | HLT Info | DQM Info | Migration & Offline | Logs

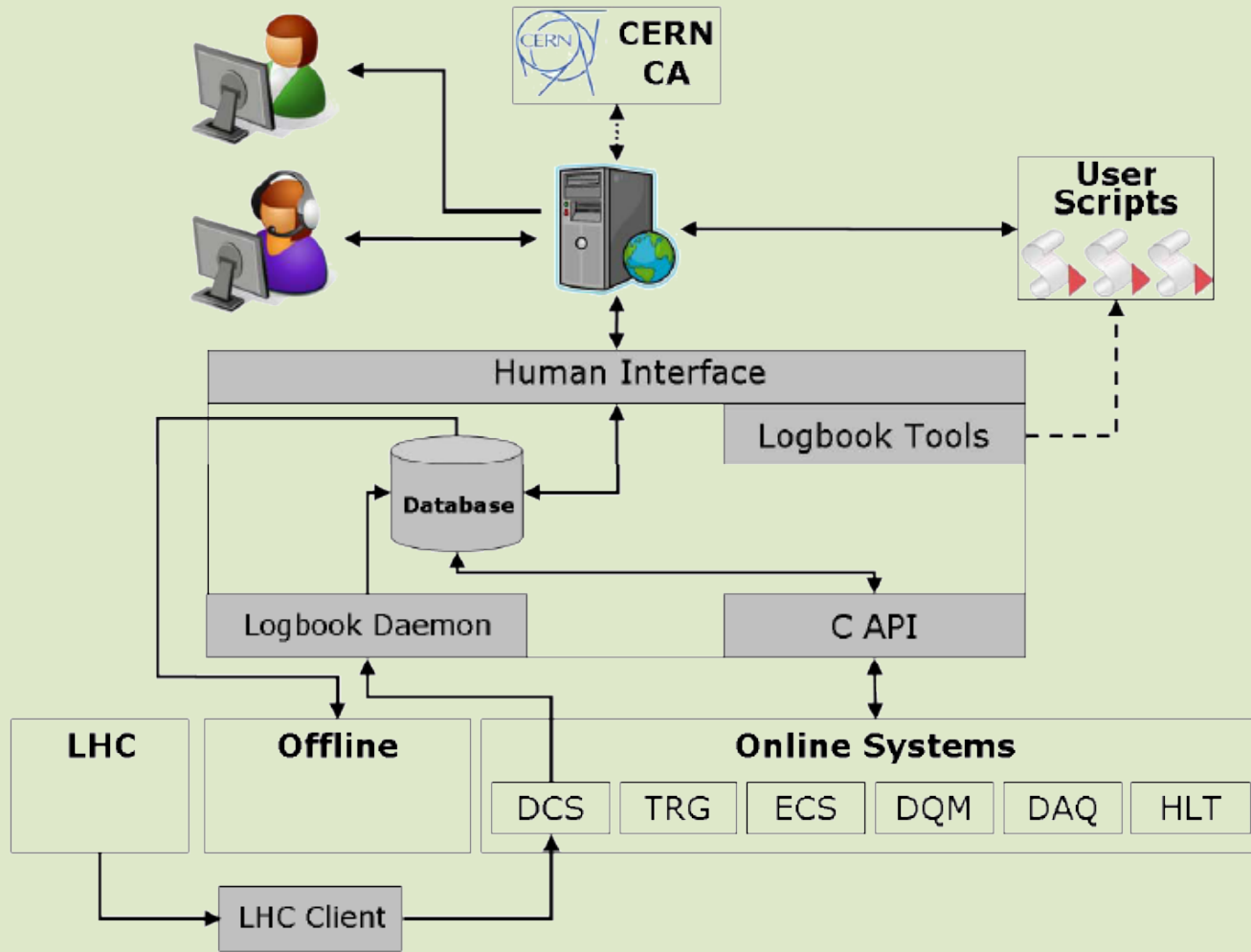
- Clusters | **Classes** | Aliases | Inputs | Configuration | Expert View

Export to PDF Excel

Trigger Classes								Counters						Rates (Hz)						Ratios			
ID	Name	BC Mask	Down Scaling	Cluster	Group	Time (s)	Duration	L0b	L0a	L1b	L1a	L2b	L2a	L0b	L0a	L1b	L1a	L2b	L2a	L0a / L0b	L1a / L1b	L2a / L2b	
0	CTRUE-B-NOPF-ALLNOTRD	B		1	0	0	01:48:38	26 354	11 380	11 380	11 380	11 380	11 380	4.0	1.7	1.7	1.7	1.7	1.7	0.43	1.00	1.00	
1	CTRUE-ACE-NOPF-ALLNOTRD	ACE		1	0	0	01:48:38	9 347	4 142	4 142	4 142	4 142	4 142	1.4	0.64	0.64	0.64	0.64	0.64	0.44	1.00	1.00	
2	CINT7-B-NOPF-ALLNOTRD	B	0.042%	1	0	0	01:48:38	810 810 189	143 021	143 021	143 021	143 021	143 021	124 396	21.9	21.9	21.9	21.9	21.9	1.76E-4	1.00	1.00	
3	CINT7-ACE-NOPF-ALLNOTRD	ACE	10.000%	1	0	0	01:48:38	111 499	5 100	5 100	5 100	5 100	5 100	17.1	0.78	0.78	0.78	0.78	0.78	0.05	1.00	1.00	
4	CM5L7-B-NOPF-ALLNOTRD	B	0.309%	1	0	0	01:48:38	40 128 582	55 757	55 757	55 757	55 757	55 757	6 157	8.6	8.6	8.6	8.6	8.6	1.39E-3	1.00	1.00	
5	CMUP8-B-NOPF-ALLNOTRD	B		1	0	0	01:48:38	37 402	17 069	17 069	17 069	17 069	17 069	5.7	2.6	2.6	2.6	2.6	2.6	0.46	1.00	1.00	
6	CMUP9-B-NOPF-ALLNOTRD	B		1	0	0	01:48:38	29 812	13 760	13 760	13 760	13 760	13 760	4.6	2.1	2.1	2.1	2.1	2.1	0.46	1.00	1.00	
7	CMUP8-ACE-NOPF-ALLNOTRD	ACE		1	0	0	01:48:38	7 928	3 662	3 662	3 662	3 662	3 662	1.2	0.56	0.56	0.56	0.56	0.56	0.46	1.00	1.00	
8	CMUP9-ACE-NOPF-ALLNOTRD	ACE		1	0	0	01:48:38	4 149	1 915	1 915	1 915	1 915	1 915	0.64	0.29	0.29	0.29	0.29	0.29	0.46	1.00	1.00	
9	COTVX-B-NOPF-ALLNOTRD	B	0.000%	1	0	0	01:48:38	611 766 130	0	0	0	0	0	93 858	0	0	0	0	0	0	0	0	
10	COTVX-ACE-NOPF-ALLNOTRD	ACE	0.000%	1	0	0	01:48:38	7 538	0	0	0	0	0	1.2	0	0	0	0	0	0	0	0	
11	CPH17-B-NOPF-ALLNOTRD	B	29.401%	1	0	0	01:48:38	324 938	46 260	46 260	46 260	46 260	46 260	49.9	7.1	7.1	7.1	7.1	7.1	0.14	1.00	1.00	
12	CPH17-ACE-NOPF-ALLNOTRD	ACE		1	0	0	01:48:38	12	6	6	6	6	6	1.84E-3	9.21E-4	9.21E-4	9.21E-4	9.21E-4	9.21E-4	0.50	1.00	1.00	
13	CVG0-ABCE-NOPF-ALLNOTRD	ABCE	0.005%	1	0	0	01:48:38	140 278 301	1 627	1 627	1 627	1 627	1 627	21 522	0.25	0.25	0.25	0.25	0.25	1.16E-5	1.00	1.00	
14	CSM7-B-NOPF-ALLNOTRD	B	9.565%	1	0	0	01:48:38	1 209 796	53 384	53 384	53 384	53 384	53 384	185.6	8.2	8.2	8.2	8.2	8.2	0.04	1.00	1.00	
15	CEMC7-B-NOPF-CENTNOTRD	B	0.503%	2	0	0	01:48:38	8 837 948	28 169	28 169	28 169	28 169	28 169	1 356	4.3	4.3	4.3	4.3	4.3	3.19E-3	1.00	1.00	
16	CEMC7-ACE-NOPF-CENTNOTRD	ACE		2	0	0	01:48:38	212	131	131	131	131	131	3.25E-2	2.01E-2	2.01E-2	2.01E-2	2.01E-2	2.01E-2	0.62	1.00	1.00	
17	CEMC7EG1-B-NOPF-CENTNOTRD	B		2	0	0	01:48:38	8 837 948	5 745 375	68 835	68 835	68 835	68 835	1 356	881.5	10.6	10.6	10.6	10.6	0.65	1.00	1.00	
18	CEMC7EG2-B-NOPF-CENTNOTRD	B	10.226%	2	0	0	01:48:38	8 837 948	584 264	28 801	28 801	28 801	28 801	1 356	89.6	4.4	4.4	4.4	4.4	0.07	1.00	1.00	
19	CEMC7EJ1-B-NOPF-CENTNOTRD	B		2	0	0	01:48:38	8 837 948	5 745 375	80 637	80 637	80 637	80 637	1 356	881.5	12.4	12.4	12.4	12.4	0.65	1.00	1.00	
20	CEMC7EJ2-B-NOPF-CENTNOTRD	B	1.636%	2	0	0	01:48:38	8 837 948	93 804	31 047	31 047	31 047	31 047	1 356	14.4	4.8	4.8	4.8	4.8	0.01	1.00	1.00	
21	CCUP7-B-NOPF-CENTNOTRD	B		2	0	0	01:48:38	80 006	46 309	46 309	46 309	46 309	46 309	12.3	7.1	7.1	7.1	7.1	7.1	0.58	1.00	1.00	
22	CCUP7-ACE-NOPF-CENTNOTRD	ACE		2	0	0	01:48:38	426	187	187	187	187	187	6.54E-2	2.87E-2	2.87E-2	2.87E-2	2.87E-2	2.87E-2	0.44	1.00	1.00	
23	COLSR-ABCE-NOPF-CENTNOTRD	ABCE		2	0	0	01:48:38	201	200	200	200	200	200	3.08E-2	3.07E-2	3.07E-2	3.07E-2	3.07E-2	3.07E-2	1.00	1.00	1.00	
24	CINT7MU-B-NOPF-ALL	B	0.042%	3	0	0	01:48:38	570 098 330	126 571	126 571	126 571	126 571	126 571	87 465	19.4	19.4	19.4	19.4	19.4	2.22E-4	1.00	1.00	
25	CINT7MU-ACE-NOPF-ALL	ACE	10.000%	3	0	0	01:48:38	49 325	2 617	2 617	2 617	2 617	2 617	7.6	0.40	0.40	0.40	0.40	0.40	0.05	1.00	1.00	
26	CPH17MU-B-NOPF-ALL	B	29.401%	3	0	0	01:48:38	232 733	38 562	38 562	38 562	38 562	38 562	35.7	5.9	5.9	5.9	5.9	5.9	0.17	1.00	1.00	
27	CPH17MU-ACE-NOPF-ALL	ACE		3	0	0	01:48:38	8	6	6	6	6	6	1.23E-3	9.21E-4	9.21E-4	9.21E-4	9.21E-4	9.21E-4	0.75	1.00	1.00	
28	CSM7MU-B-NOPF-ALL	B	9.565%	3	0	0	01:48:38	846 163	43 971	43 971	43 971	43 971	43 971	129.8	6.7	6.7	6.7	6.7	6.7	0.05	1.00	1.00	
29	CEMC7MU-B-NOPF-CENT	B	0.503%	4	0	0	01:48:38	6 865 872	24 036	24 036	24 036	24 036	24 036	1 053	3.7	3.7	3.7	3.7	3.7	3.50E-3	1.00	1.00	
30	CEMC7MU-ACE-NOPF-CENT	ACE		4	0	0	01:48:38	175	117	117	117	117	117	2.68E-2	1.80E-2	1.80E-2	1.80E-2	1.80E-2	1.80E-2	0.67	1.00	1.00	
31	CEMC7MUEG1-B-NOPF-CENT	B		4	0	0	01:48:38	6 865 872	4 788 755	57 354	57 354	57 354	57 354	1 053	734.7	8.8	8.8	8.8	8.8	0.70	1.00	1.00	
32	CEMC7MUEG2-B-NOPF-CENT	B	10.226%	4	0	0	01:48:38	6 865 872	487 704	24 027	24 027	24 027	24 027	1 053	74.8	3.7	3.7	3.7	3.7	3.7	0.07	1.00	1.00
33	CEMC7MUEJ1-B-NOPF-CENT	B		4	0	0	01:48:38	6 865 872	4 788 755	67 254	67 254	67 254	67 254	1 053	734.7	10.3	10.3	10.3	10.3	0.70	1.00	1.00	
34	CEMC7MUEJ2-B-NOPF-CENT	B	1.636%	4	0	0	01:48:38	6 865 872	78 196	25 902	25 902	25 902	25 902	1 053	12.0	4.0	4.0	4.0	4.0	0.01	1.00	1.00	



ALICE
A JOURNEY OF DISCOVERY



- Apache
- MySQL
- PHP5
- JpGraph

architecture

Fill Info

Fill # 3482
 SB Start 22/01/2013 11:53:08
 SB End 22/01/2013 23:51:17
 Duration 11:58:09

EOR Systems (Fill 3482)

Comments



ALICE
 A JOURNEY OF DISCOVERY

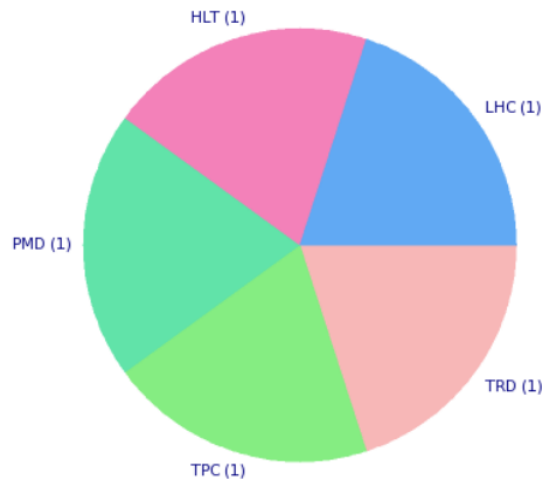
Data Taking

Duration 11:27:05
 # of Runs 5

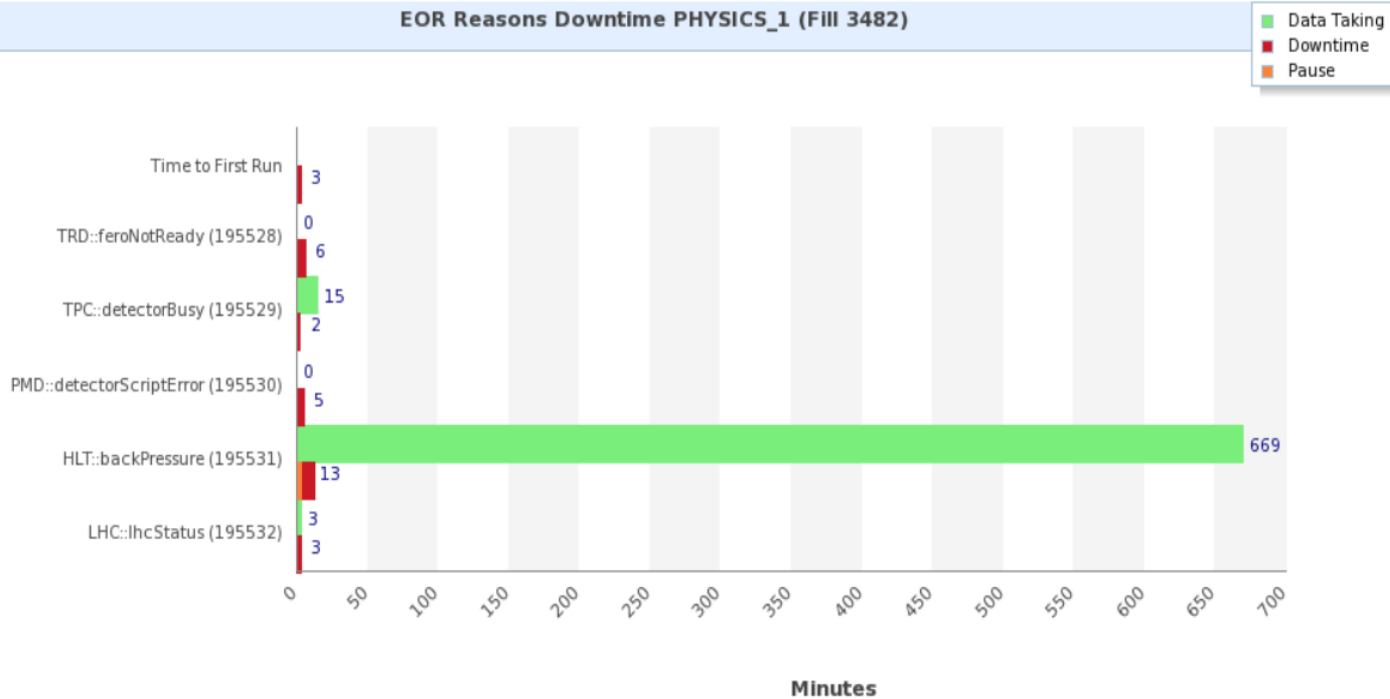
Efficiency

ALICE 96%

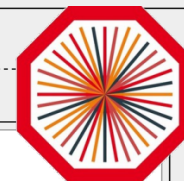
ACO 96%
 EMC 96%
 FMD 96%
 HMP 96%
 MCH 96%
 MTR 96%
 PHS 96%
 PMD 96%
 SDD 96%
 SPD 96%
 SSD 96%
 T00 96%
 TOF 96%
 TPC 96%
 TRD 96%
 V00 96%
 ZDC 96%



EOR Reasons Downtime PHYSICS_1 (Fill 3482)



Data Quality Monitoring Info - agent 'DAQshifter_PHYSICS_1'



ALICE
A JOURNEY OF DISCOVERY

Expand all Collapse all

- Tree
- Other
- ACO
- DAQ
 - DAQHRCtp_PH_1
 - DAQshifterTime_PH_1
 - DAQshifter_PHYSICS_1
 - DAQTime_PHYSICS_1
 - DAQ_PHYSICS_1
- EMC
- FMD
- HLT
- HMP
- LHC
- PHS
- PMD
- SDD
- SPD
- SSD
- T00
- TOF
- TPC
- TRD
- TRI
- V00
- ZDC

Expand all Collapse all

Overview

Permanently Archived MOs (0) Temporarily Archived MOs (0) Online MOs (0)

General

Detector: DAQ
Version: 2.51
Monitor Objects: 77
Versions: 5852
Total Size: 1.7 GB
Last Updated: 10/02/2013 01:07:01

Runtime Parameters

```
amoreAgent -a DAQshifter_PHYSICS_1
Command line + default parameters :
-a DAQshifter_PHYSICS_1 -s =PHYSICS_1 -p PHYSICS_1 -g
eventSizePPb.config
Extra flags: -u -t 45 -p PHYSICS_1 -f S -f S
Configuration file :
ACORDE 0.14
EMCAL 25.0
FMD 13
HMPID 17.8
MUONTRK 35.0
MUONTRG 6.63
PHOS 35.0
PMD 8.0
ITSSDD 15.9
ITSSPD 6.59
ITSSSD 41.8
T0 0.6
TOF 22.5
TPC 15360.0
TRD 350.0
TRG 0.3
VZERO 5.9
ZDC 0.69
# special case for HLT : here we specify the value as a
percentage of TPC
HLT 0.25

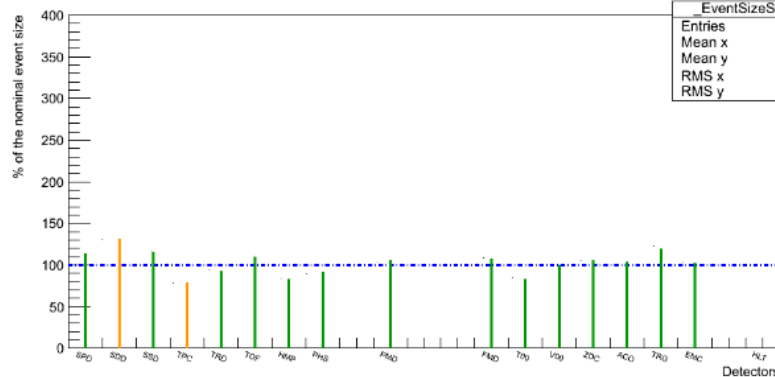
_limit_OK 0.2
_limit_WARN 0.5
_limit_ERR 0.85
```

Monitoring Objects

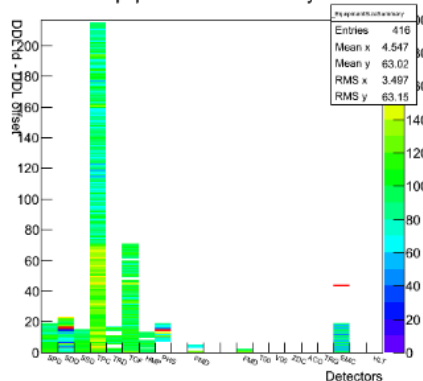
MOs Permanently Archived: 0 (0.0 KB)
MOs Temporarily Archived: 0 (0.0 KB)
MOs Online: 0 (0.0 KB)
First Object From:
Last Object From:

Sun Feb 10 1:4:22 2013 Run 197351

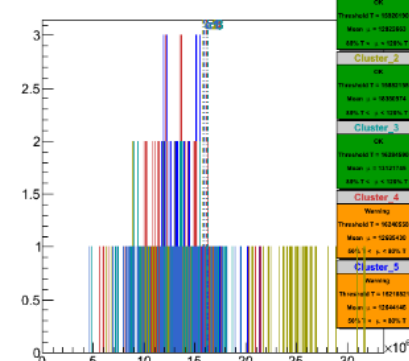
Event size summary



Equipment size summary



Clusters event size distribution (Physics events)



Large Icons
Subdetectors
Help
LHCb Page 1
LHCb Run Status
FEST Run Status
Subdetector Run Status
Collimators
HV Status
Operations Status
BCM
LHCb PVSS Alarms
LHC Status
ELog LHCb
LHCb
LHC Project
Operations
CERN

LHCb Online displays

This is a rather young application and obviously not everything can be perfect. However, you are invited to send me mail in the event of unsatisfactory behaviour or bugs.

Description:

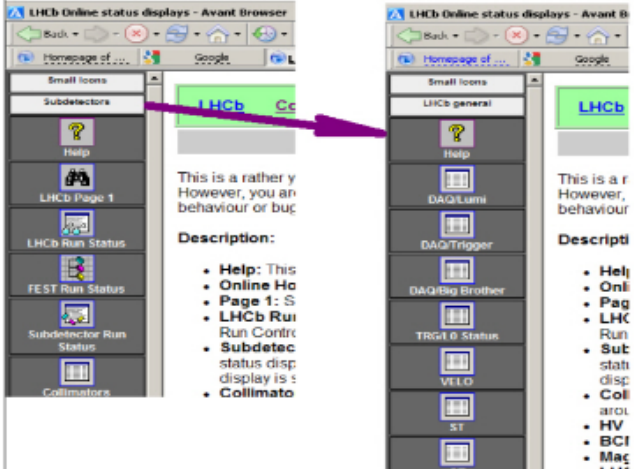
- **Help:** This page
- **Online Home:** Link to the main online home page.
- **Page 1:** Summary display of the LHCb status.
- **LHCb Run Status:** Summary display of the LHCb status similar to the Run Control.
- **Subdetector Run Status:** Summary display of the subdetector run status displays. Subdetectors may be choised in the selection box. The display is similar to the Run Control.
- **Collimators:** Summary display of the collimator and TED settings around point 8/LHCb.
- **HV Status:** High volatge and LHCb detector status summary display.
- **BCM:** Reading of the Beam Conditions Monitors.
- **Magnet:** Magnet status and field readings.
- **LHC Status:** LHC status around point 8/LHCb.
- **ELog:** LHCb logbook -- what's going on at Pit 8?

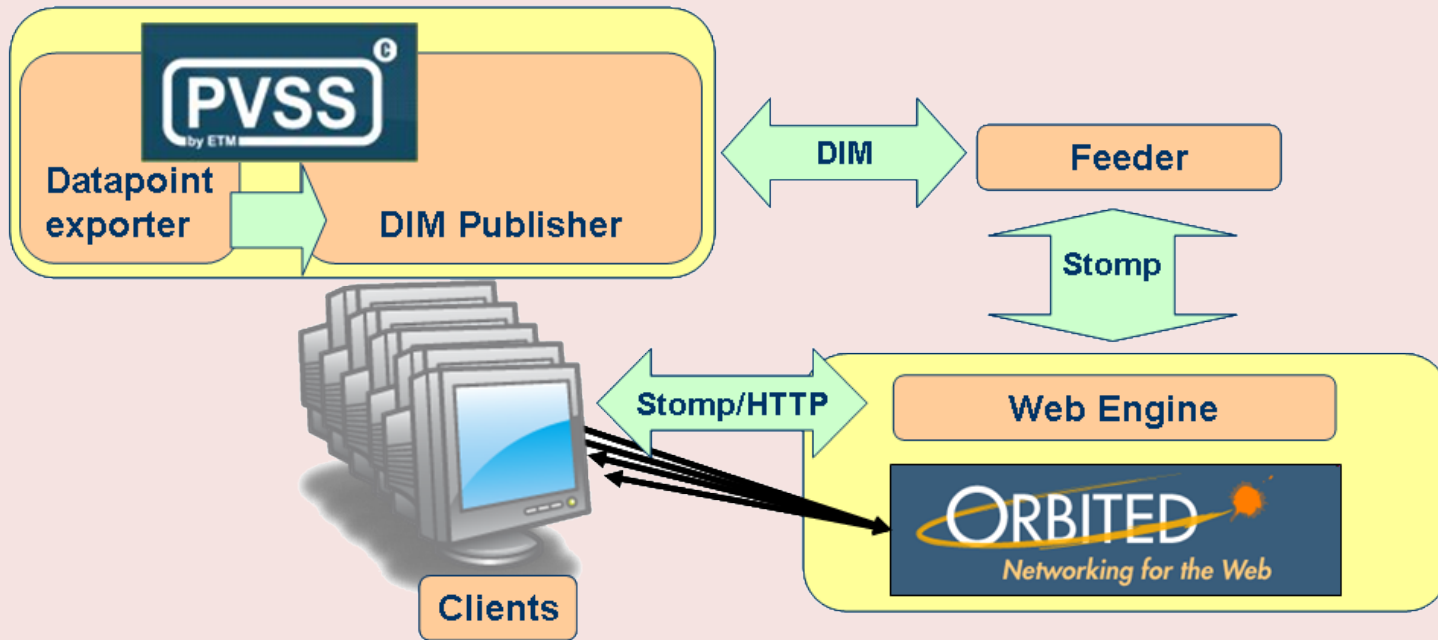


Subdetector Area:

If you click on the "Subdetectors" button to the left, a new menu opens, which gives access to subdetector specific information.

Have fun!





PVSS
browser tool

DIM

Orbited

Apache
Active MQ

JSON

Apache

Django

architecture



LHCb Run Status Display

LHC Fill 3575

State:NO BEAM / SHUTDOWN

LHCb	RUNNING	
DCS	READY	
DAI	READY	
DAQ	RUNNING	
RunInfo	RUNNING	
TFC	RUNNING	
HLT	RUNNING	
Storage	RUNNING	
Monitoring	RUNNING	
Reconstruction	RUNNING	
Calibration	RUNNING	

Run number	137643
Run type	COSMICS LS1
Run start time	2013.02.21 16:53:23.991
Run duration	000:56:57
Data type	COSMICSLS1
Data destination	2
Number of L0 events	22059845
Number of HLT Accept events	22047683
L0 Trigger Rate	6393.00 Hz
Integrated L0 trigger rate	6459.00 Hz
HLT Accept Rate	6441.00 Hz
Integrated HLT accept rate	6443.00 Hz
Dead-time	0.72 %
Integrated dead-time	0.72 %
L0 configuration (L0-TCK)	COSMICS_spd_0x0006
HLT configuration (HLT-TCK)	ODINPhys,Timing acc=1, ODINTech,Aux,NZS,Calib acc=PVSS, VeloFull acc=1 (0x80990000)

14 Subdetectors

TDET	VELOA	VELOC	TT	IT	OTA	OTC
NOT_READY	NOT_READY	NOT_READY	NOT_READY	NOT_ALLOCATED	READY	READY
RICH1	RICH2	PRS	ECAL	HCAL	MUONA	MUONC
RUNNING	RUNNING	RUNNING	RUNNING	RUNNING	RUNNING	RUNNING

5 Triggers

L0DU	TCALO	TMUA	TMUC	TPU_DAQ
RUNNING	RUNNING	RUNNING	RUNNING	RUNNING

- Large Icons
- Subdetectors
- Help
- LHCb Page 1
- LHCb Run Status**
- FEST Run Status
- Subdetector Run Status
- Collimators
- HV Status
- Operations Status
- BCM
- LHCb PVSS Alarms
- LHC Status
- ELog LHCb
- LHCb
- LHC Project
- Operations
- CERN



Fill 3236

Fill id	End date	Stable Beam duration	Delivered lumi nb-1	Stored lumi nb-1	Inefficiency (%)				
					Total	HV ON	VELO IN	DAQ	DEAD TIME
3236	2012-10-29 12:08:03	17:58:56	25041.33	24364.45	2.70	0.05	0.27	0.53	1.87

TOTAL nb-1	HV ON nb-1	VELO IN nb-1	RUNNING nb-1	ON TAPE nb-1
25041.33	25027.74	24959.50	24827.75	24364.45

Runs statistic for files from LHCb partition and OFFLINE destination:

Counters summary for files from FULL stream:

Runs	Files	Events	PhysStat	LowLumi	HighLumi
34	7375	392897924	329275730		1020823

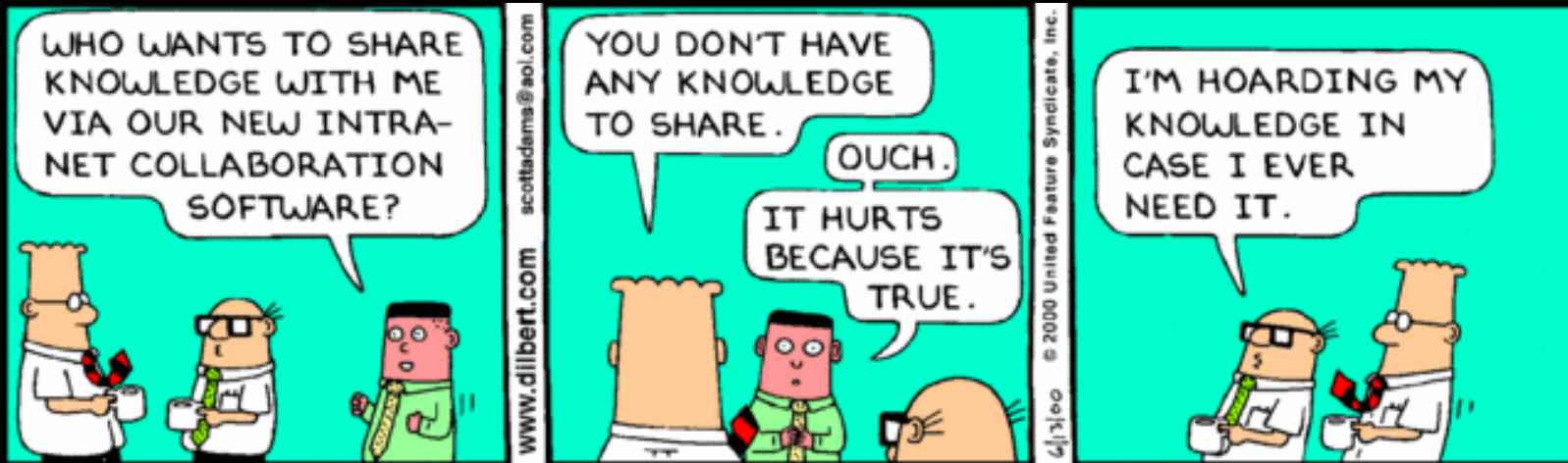
ODIN type	Physics	BeamGas	Lumi	Technical	Other
					0

HLT tags	Physics	MinBias	Lumi	BeamGas	Other
Inclusive	318534210		63654952	2306296	8445554
Exclusive	318503142		63623962	2282181	8445554

	RUNID	FILLID	FILES	PARTITION: SUBDETECTORS	RUNTYPE / ACTIVITY	TCK	PHYSSTAT	STATE / DESTINATION	START	END
	131126	3236	262	LHCb: complete	COLLISION12 COLLISION	0x00A30044	11443826	IN BKK OFFLINE	2012-10-29 11:24:11	2012-10-29 12:12:18
	131125	3236	263	LHCb: complete	COLLISION12 COLLISION	0x00A30044	11426470	IN BKK OFFLINE	2012-10-29 10:42:32	2012-10-29 11:24:10
	131124	3236	403	LHCb: complete	COLLISION12 COLLISION	0x00A30044	17485164	IN BKK OFFLINE	2012-10-29 09:42:25	2012-10-29 10:42:32
	131123	3236	47	LHCb: complete	COLLISION12 COLLISION	0x00A30044	682158	IN BKK OFFLINE	2012-10-29 09:39:52	2012-10-29 09:42:24
	131122	3236	432	LHCb: complete	COLLISION12 COLLISION	0x00A30044	18672877	IN BKK OFFLINE	2012-10-29 08:39:42	2012-10-29 09:39:52
	131121	3236	360	LHCb: complete	COLLISION12 COLLISION	0x00A30044	15366229	IN BKK OFFLINE	2012-10-29 07:51:12	2012-10-29 08:39:42

experts/operators





knowledge sharing

Documentation	User manuals
Troubleshooting	Procedures
Howtos	Training material



DAQ Contents

- ▼ Public
 - Publications and Presentations
 - ALICE Documents
 - About us
 - Contact us
- ▼ Operations
 - DAQ Training
 - Operations instructions
 - ▼ Advanced Op. instructions
 - Search
 - Infrastructure inst. and config.
- ▼ Products
 - Hardware
 - ▼ Software
 - ▶ AMORE
 - ▶ DATE
 - ▶ Logbook
- ▼ DAQ Internals
 - JIRA
 - DAQ minutes
 - DAQ documents and publications
 - Knowledge base
 - ALICE upgrades

atelesca

- My account
- ▶ Create content
- ▶ Administer
- Log out

Public

- VIEW
- EDIT
- OUTLINE
- DEVEL

DAQ home

Welcome to the ALICE Data Acquisition web site

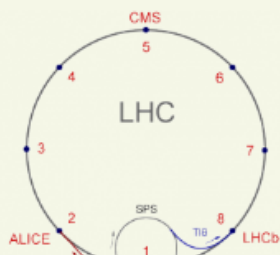
Please browse the side tree in order to access more content.

ALICE (A Large Ion Collider Experiment) is the heavy-ion detector studying the physics of strongly interacting matter and the quark-gluon plasma at the CERN LHC.

The detector includes high resolution tracking (silicon detectors, large time-projection chamber), particle identification, and triggering elements. It features two large magnets, a main solenoid and a dipole on the Muon arm. ALICE consists of 18 sub-detectors, being able to take data independently (standalone operation) or in global partitions (set of sub-detectors running together).



The LHC P2 hosts the ALICE Detector. The ALICE Control room, the working rooms and the CR1 DAQ counting room are all located at P2.



Search on web site ...

External links

- ALICE Electronic Logbook
- ALICE Collaboration web site
- LHC status

More...

- CR1 database web
- IPMI web interface
- infoBrowser web
- infoBrowser web DQM
- CR1 monitoring
- ALICE Configuration Tool
- Orthos





To continue moving more and more information to the web instead of dedicated applications...



Provide API for specific information...
Have a cluster of servers to do load balancing and make the infrastructure even more robust...



Maybe introduce a Web tool (developed by ATLAS) to retrieve and trend historical data such as luminosity, voltages, temperatures, etc...



ALICE
A JOURNEY OF DISCOVERY

Aggregate all the information in few places...
Introduce some high level reporting capability...

Vasco Chibante Barroso	ALICE
Markus Frank	LHCb
Clara Gaspar	LHCb
Serguei Kolos	ATLAS
Giovanna Lehmann Miotto	ATLAS
Juan Lopez Perez	CMS
Kaori Maeshima	CMS
Adriana Telesca	ALICE

Vasco Chibante Barroso ALICE

Markus Frank LHCb

Clara Gaspar LHCb

Serguei Kolos ATLAS

Giovanna Lehmann Miotto ATLAS

Juan Lopez Perez CMS

Kaori Maeshima CMS

Adriana Telesca ALICE

questions

