



# Production status

**ALICE Offline week**

27 November 2015

Latchezar Betev

# Production cycles in 2015

- MC – 96 cycles – usual number of productions
  - 1,952,334,979 events
  - p-p, p-Pb, Pb-p, some Pb-Pb, some G4
- RAW – reprocessed (almost) all p-p data
  - LHC10

Production	Description	Status	Run Range	Runs	Chunks	Size	Chunks	Size	Events		
LHC10g_pass4	LHC period LHC10g - Full production pass 4, ALIROOT-5311	Completed	135941 - 136193	10	5,158	13.17 TB	5,080	98%	1.069 TB	8%	18,997,194
LHC10f_pass4	LHC period LHC10f - Full production pass 4, ALIROOT-5311	Completed	133005 - 134304	26	32,502	85.78 TB	32,374	99%	8.696 TB	10%	106,533,766
LHC10e_pass4	LHC period LHC10e - Full production pass 4, ALIROOT-5311	Completed	127712 - 130850	166	108,038	282.4 TB	106,107	98%	30.47 TB	10%	314,214,914
LHC10d_pass4	LHC period LHC10d - Full production pass 4, ALIROOT-5311	Completed	122372 - 126437	107	66,827	174.6 TB	65,566	98%	19.95 TB	11%	245,147,842
LHC10c_pass4	LHC period LHC10c - Full production pass 4, ALIROOT-5311	Completed	118503 - 121040	91	37,843	98.47 TB	37,715	99%	16.16 TB	16%	162,461,274
LHC10b_pass4	LHC period LHC10b - Full production pass 4, ALIROOT-5311	Completed	114751 - 117222	83	10,526	25.63 TB	10,455	99%	2.854 TB	11%	47,475,443
					<b>260,894</b>	<b>680.1 TB</b>	<b>257,297</b>		<b>79.2 TB</b>		<b>894,830,433</b>

# Production cycles in 2015(2)

## – LHC13

Production	Description	Status	Run Range	Runs	Chunks	Size	Chunks	Size	Events		
LHC13f_pass4	LHC period LHC13f - Full production pass 4, ALIROOT-5863	Completed	196528 - 197342	57	121,955	96.09 TB	119,368	97%	60.3 TB	64%	72,294,514
LHC13e_pass4	LHC period LHC13e - Full production pass 4, ALIROOT-5863	Completed	195935 - 196310	30	67,573	54.34 TB	63,936	94%	30.51 TB	59%	34,620,012
LHC13d_pass4	LHC period LHC13d - Full production pass 4, ALIROOT-5863	Completed	195681 - 195873	21	42,259	33.12 TB	41,330	97%	20.17 TB	62%	23,599,245
LHC13c_pass4	LHC period LHC13c - Full production pass 4, ALIROOT-5863	Completed	195529 - 195677	14	72,908	63.93 TB	72,846	99%	20.79 TB	32%	94,345,978
LHC13b_pass4	LHC period LHC13b - Full production pass 4, ALIROOT-5863	Completed	195344 - 195483	12	28,521	22.23 TB	28,501	99%	7.036 TB	31%	33,468,820
					<b>333,216</b>	<b>269.7 TB</b>	<b>325,981</b>		<b>138.8 TB</b>		<b>258,328,569</b>

# Production cycles in 2015(3)

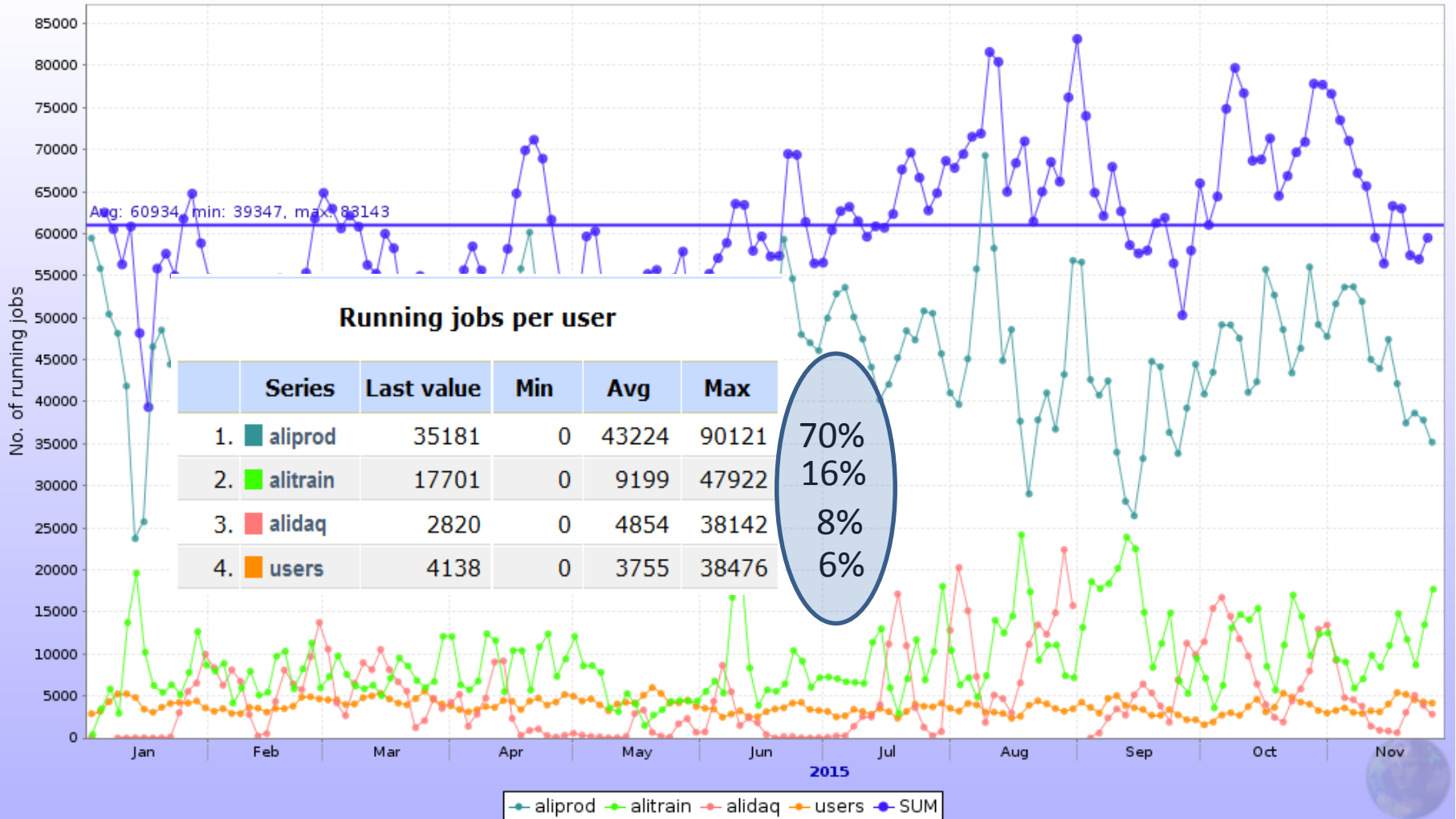
## – LHC15

Production	Description	Status	Run Range	Runs	Chunks	Size	Chunks	Size	Events		
LHC15o_pass1	LHC period LHC15o - Full production pass 1	Scheduled	-	1					-		
LHC15n_pass1	LHC period LHC15n - Full production pass 1	Completed	244340 - 244377	10	14,310	22.12 TB	14,235	99%	4.445 TB	20%	49,772,460
LHC15l_pass1	LHC period LHC15l - Full production pass 1	Technical stop	-	1					-		
LHC15k_pass1	LHC period LHC15k - Full production pass 1	Technical stop	-	1					-		
LHC15j_pass1	LHC period LHC15j - Full production pass 1	Technical stop	236973 - 237678	7	12,310	19.85 TB	12,225	99%	7.794 TB	39%	8,002,059
LHC15i_pass1	LHC period LHC15i - Full production pass 1	Completed	235196 - 236866	108	643,107	1.036 PB	616,954	95%	85.59 TB	8%	283,489,845
LHC15h_pass1	LHC period LHC15h - Full production pass 1	Completed	232914 - 234050	68	327,386	544.9 TB	293,861	89%	38.96 TB	7%	213,863,587
LHC15g_pass1	LHC period LHC15g - Full production pass 1	Completed	228855 - 230292	31	26,567	37.65 TB	26,171	98%	6.125 TB	16%	20,766,687
LHC15f_pass1	LHC period LHC15f - Full production pass 1	Completed	224895 - 226532	45	18,857	21.9 TB	16,542	87%	12.1 TB	62%	84,564,615
LHC15e_pass1	LHC period LHC15e - Full production pass 1	Completed	223270 - 224772	59	15,648	9.16 TB	11,595	74%	1.685 TB	24%	73,262,707
LHC15d_pass1	LHC period LHC15d - Full production pass 1	Completed	220139 - 222966	100	6,148	5.513 TB	5,234	85%	656.5 GB	13%	29,817,237
					<b>1,064,333</b>	<b>1.682 PB</b>	<b>996,817</b>		<b>157.3 TB</b>		<b>763,539,197</b>

– High interaction rates – TPC distortion, all productions beyond LHC15g to be redone

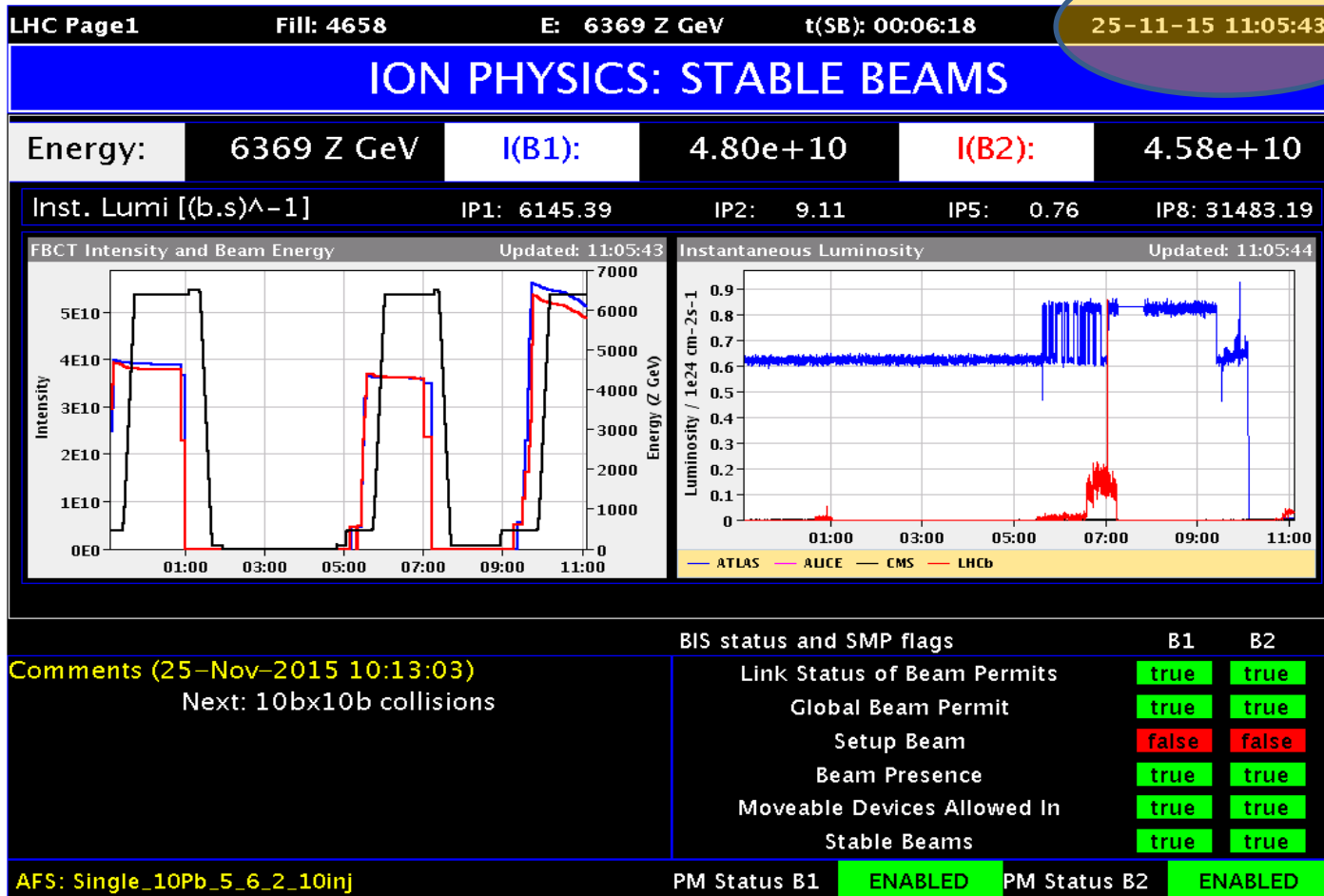
# Job profiles

## Running jobs per user



# LHC15o – Pb-Pb

- Start of data taking



# LHC15o – Pb-Pb

- First run

Detectors participating in runs at 11:09:00																							
<input checked="" type="checkbox"/> Readout Detector <input type="checkbox"/> Trigger Detector <input checked="" type="checkbox"/> Trigger & Readout Detector																							
B E A M	R U N	C L U S T E R	H L T  M O D E	D U R A T I O N	E V E N T S	Detectors																V O	Z D C
						A C O R D E	A D	C P V	D A Q  T E S T	E M C A L	F M D	H M P I D	M U O N  T R G	M U O N  T R K	P H O S	P M D	S D D	S P D	S S D	T O	T O F		
Partition: PHYSICS_1    CTP Config: PbPb2015 (v12)																							
Y	244914		C	0.6 m	4.5 k	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1				2.5 k	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2				1.8 k	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	3				3.3 k	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	4				343	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# Status of Pb-Pb production

- Muon+Calorimeter cycle
  - SetRunReconstruction("ALL -TPC -TRD -TOF -HLT -PMD");
  - Fast (5 sec/event)
- CPass0/CPass1
  - Running “Old style”, i.e. no TPC residual corrections
  - Producing merged [ResidualTrees.root](#) (used as input for residual corrections)
  - Slow (180 sec/event), but trigger pre-scaling was not applied



# Status of Pb-Pb production

- Statistics (as of this morning)

LHC period LHC15o - Muon+Calorimeters reconstruction pass 1	Running	244917 - 245152	15	76,751	70.94 TB	60,844	79%	871.5 GB	1%	13,214,235
LHC period LHC15o - Full production pass 1	Scheduled	-	1						-	
LHC period LHC15o - CPass1 (reconstruction) for pass 1	Running	244917 - 245068	7	13,976	12.39 TB	10,585	75%	87.69 GB	0%	346,235
LHC period LHC15o - CPass0 (reconstruction) for pass 1	Running	244917 - 245152	15	76,751	70.94 TB	72,989	95%	307.5 GB	0%	3,399,824

- Muon\_Calo – basically no backlog
- CPass0/CPass1 – 1 day behind data taking
  - So far not yet fully saturated resources, but this will change...
  - Smooth going

# Production operations

- Moving fully to an 'Institutional responsibility' schema
- The production of MC/RAW/Refiltering will be handled by Institute for Space Studies (ISS), Romania
- Project leader – Catalin-Lucian Ristea
- MC/Refiltering is fully handled by ISS since more than one year
- RAW is on its way...

# Summary

- Productions in 2015 are executed as usual
  - All requests have been fulfilled
  - Number of tasks in the pipeline is manageable
- Resources and infrastructure is able to cope with the production load
  - Computing resources are stable and growing
  - MC is, as usual, the main resources user (70%), followed by user tasks (22%) and RAW (8%)
- Production execution will be handled by ISS as Institutional Responsibility