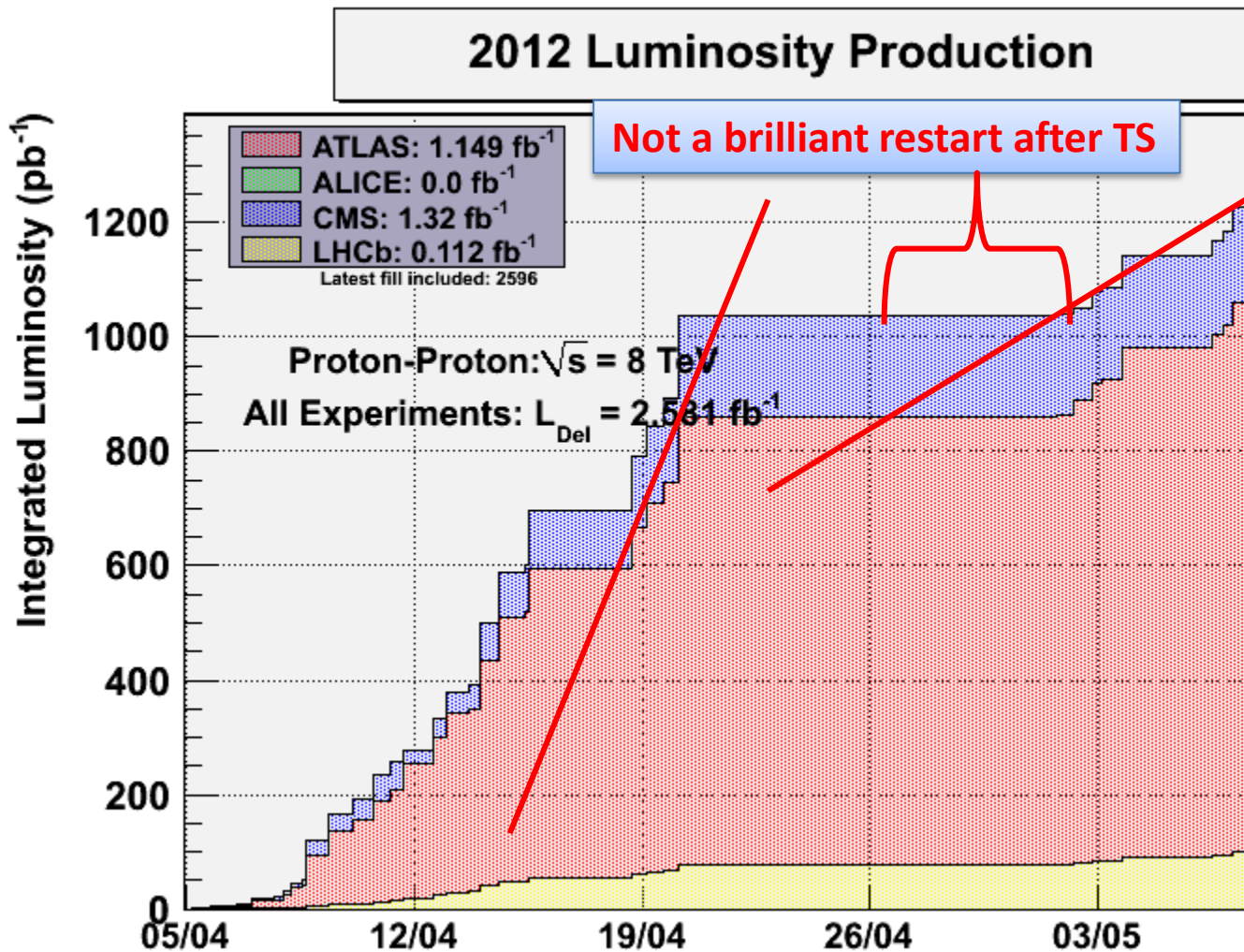


MIRKO POJER



OPERATION

Acknowledgements: all slides are from Gianluigi's presentation at LMC

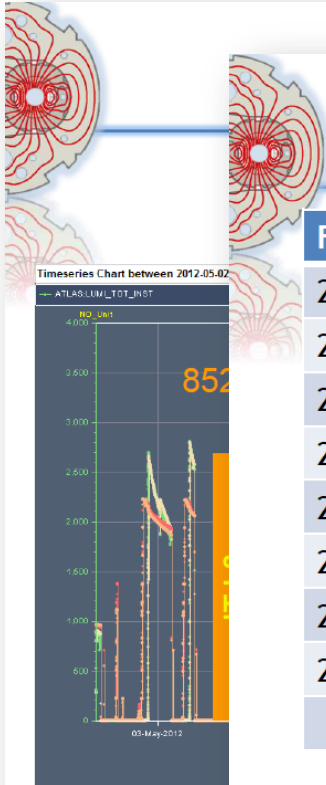




Fills of the week

Fill	Day	Nb	L (h)	Int L (pb ⁻¹)	Dump
2580	We	480	6:47	26	OP
2583	We	852	3:52	30	RF, SEU??
2584	Th	852	0:52	7.3	IT.L8 current lead T
2587	Th	852	7:13	53	OP - cryo stop Pt8
2590	Su	852	3:50	25	RQTL11.L5B1 trip
2591	Su	1092	1:15	14	Electrical network, FMCM
2593	Su	1092	04:25	41	Electrical network, FMCM
2596	Mon	1092	10:32	92	OP
				288	

...but also a lot of dumps!!!





Losses during ramp and squeeze

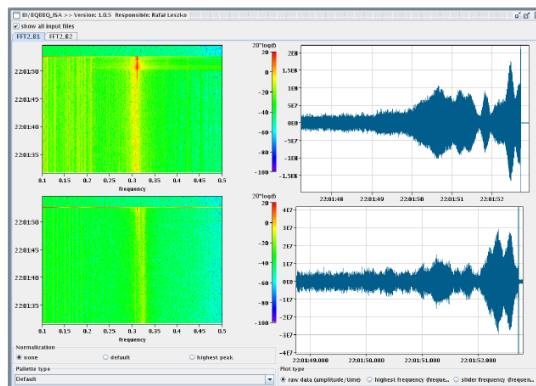
- Increased losses on Beam 2 observed already before TS
- Worsened after technical stop:
 - Related to larger tails and larger emittance at higher energy
 - Mostly appearing between 2.5 and 2 m
 - Correlated with (small) orbit distortions at TCPs and (small) relative offsets beam/collimator centre adding up for B2 in particular
 - Losses enhanced by reduced gain of the transverse feedback on 12 bunches

Losses: partially cope with by increasing the BLM thresholds and finely correcting the orbit

Instability - B1 H

- Occurring when CMS in collision and ATLAS not yet fully head-on. Lifetime good up to that point. Observed already in few previous occasions indicating that we are marginal in TFB gain during these transients

Instabilities: treated by better optimizing ATLAS and CMS during the ramp to collision, to finish really head-on



SINCE YESTERDAY, WE ARE BACK IN BUSINESS



1.15e11 p/b

1.15e11 p/b

1.34e11 p/b

The image shows a collage of LHC control room dashboards. The top row displays three VLC media player windows showing experiment status for ATLAS and ALICE. The middle row shows a 'LHC Page1' dashboard with 'PROTON PHYSICS: STABLE BEAMS' and beam parameters: Energy: 4000 GeV, I(B1): 1.69e+14, I(B2): 1.68e+14. The bottom row shows detailed monitoring graphs for intensity, background, and beam energy, along with a table of BIS status and SMP flags.

Experiment Status	
Instantaneous Lumi [(ub.s) ⁻¹]	3800.8
BRAN Luminosity [(ub.s) ⁻¹]	3674.9
Fill Luminosity (nb) ⁻¹	0.0
BKGD 1	0.366
BKGD 2	83.902
BKGD 3	1.989

Experiment Status	
Instantaneous Lumi [(ub.s) ⁻¹]	3639.1
BRAN Luminosity [(ub.s) ⁻¹]	3449.2
Fill Luminosity (nb) ⁻¹	918.8
BKGD 1	0.378
BKGD 2	76.907
BKGD 3	1.921

BIS status and SMP flags		B1	B2
Link Status of Beam Permits		true	true
Global Beam Permit		true	true
Setup Beam		false	false
Beam Presence		true	true
Moveable Devices Allowed In		true	true
Stable Beams		true	true

Hopefully, we will run flat for the rest of the run, further increasing the intensity, up to 1.5-1.6e11

