



ATLAS Napoli Meeting

Comunicazioni

V. Izzo

26 gennaio 2024





News da ATLAS: RUN3

LHC Page1 Fill: 9322 E: 0 GeV t(SB): 00:00:00 21-01-24 22:26:43

SHUTDOWN: NO BEAM

Comments (28-Nov-2023 15:37:41)
YETS started

No beam before march 2024

access under control of CSA: 161669

AFS: 50ns_960b_875_875_218_40bpi_24inj_PbPb

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

PM Status B1 **ENABLED** PM Status B2 **ENABLED**



News da ATLAS: RUN3

NEWS FROM THE RUN COORDINATION

LHC agenda: **Planned to be approved at LMC this week.**

Research board decided the following plans

<p>Option 1 Prime</p>	<p>pp-ref Run</p>	<p>Oxygen Run</p>	<p>VdM Scan</p>
<p>PbPb run at the end of both 2024 and 2025 (1d more than 2024, but in total the same number of days)</p>	<p>Run scheduled at the end of the year! After TS2 and before the Heavy Ions Run, upto 6 days (4d@2024, 2d@2025)</p>	<p>Run scheduled at the end of the 2025! Oxygen atoms instead of the well known lead will be collideded.</p>	<p>Run confirmed and will be performed after the TSI.</p>

Luminosity estimates 2024/2025



Updates

Option 1 prime:

2024: pp (123d): 90 fb⁻¹
ion (18d): 1.9 nb⁻¹

2025: pp (137d): 100 fb⁻¹
ion (15d): 1.45 nb⁻¹

Total 24+25: pp (260d): 190 fb⁻¹
ion (33d): 3.35 nb⁻¹

[2022+2023: pp (119d): 72 fb⁻¹]
ion (32d): 2 nb⁻¹]

Total Run 3: pp (379d) : 262 fb⁻¹
ion (65d): 5.35 nb⁻¹

Assumptions:

pp: **average** daily integrated luminosity in June/July 2023 (excluding special runs, MDs, etc.): 0.7 fb⁻¹/day
~15% improvements in 2024/2025 → 0.8 fb⁻¹/day
ramp up: 0.3 fb⁻¹/day during 18 days

ion: **best** daily integrated luminosity in October 2023: 0.15 nb⁻¹/day
assumption that future improvements can make this number the average for 2024/2025 (**optimistic and tbc!**).
ramp up: 0.05 nb⁻¹/day during 8 days

No contingency for potential incidents is included!

LHC planning for 2024 and 2025



LHC Program Coordinators: 2 weeks more physics time in 2024 than 2023 (when 49 physics days were lost during peak performance), expect no more n_{bunch} and intensity limitations after hardware fixes during EYETS (though risks for the LHC persist)

ATLAS priorities

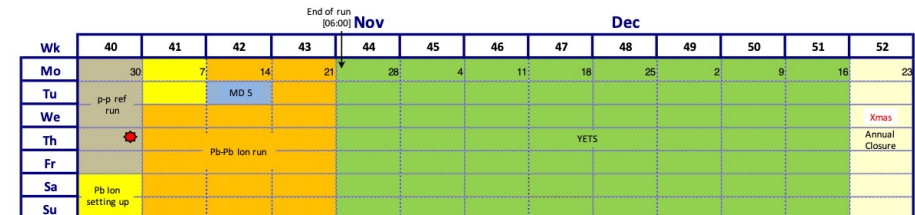
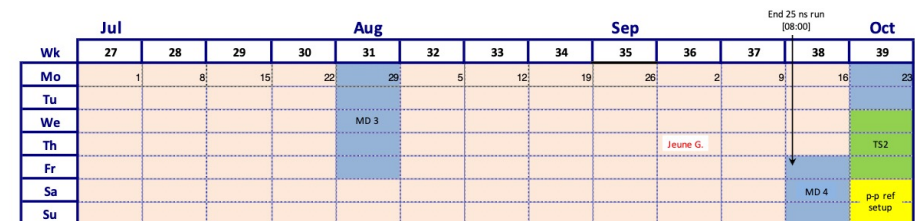
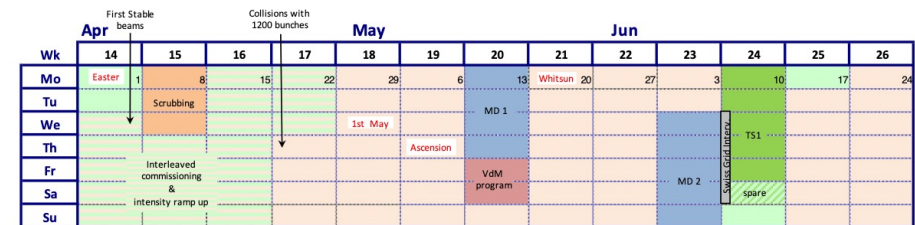
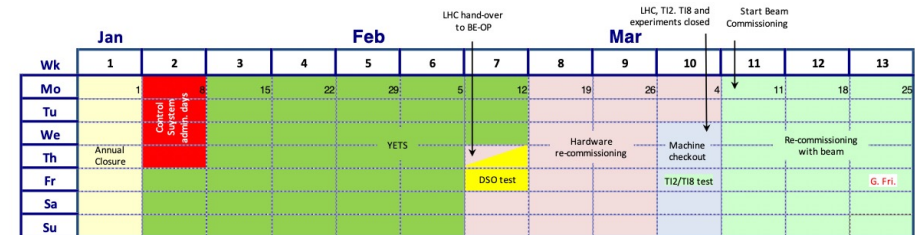
- Highest priority is to maximise pp dataset in 2024 with stable and uninterrupted periods of pp production
- Total PbPb of 5 nb⁻¹ for Run 3, agree on oxygen runs, no pPb

CERN Research Board decided for PbPb runs in 2024 & 2025, vdM after MD1 and pp reference run (possibly extended) before PbPb in 2024, oxygen run in 2025, pp reference run in 2025 TBD

- **2024:** 123 days pp ~ 90 fb⁻¹, 18d PbPb ~ 1.9 nb⁻¹
- **2025:** 137d pp ~ 100 fb⁻¹, 15d PbPb ~ 1.5 nb⁻¹
- **2024 + 2025:** 260d pp ~ 190 fb⁻¹, 33d PbPb ~ 3.4 nb⁻¹
- **Total Run 3:** 379d pp ~ 262 fb⁻¹, 65d PbPb ~ 5.4 nb⁻¹

Note: all luminosity numbers **delivered!**

Detailed 2024 running conditions (IR1 optics, levelling scheme, minimum β^* , filling schemes, Pb 50 or 75ns, ...) decided after Chamonix LHC Workshop (29 Jan – 1 Feb 2024)

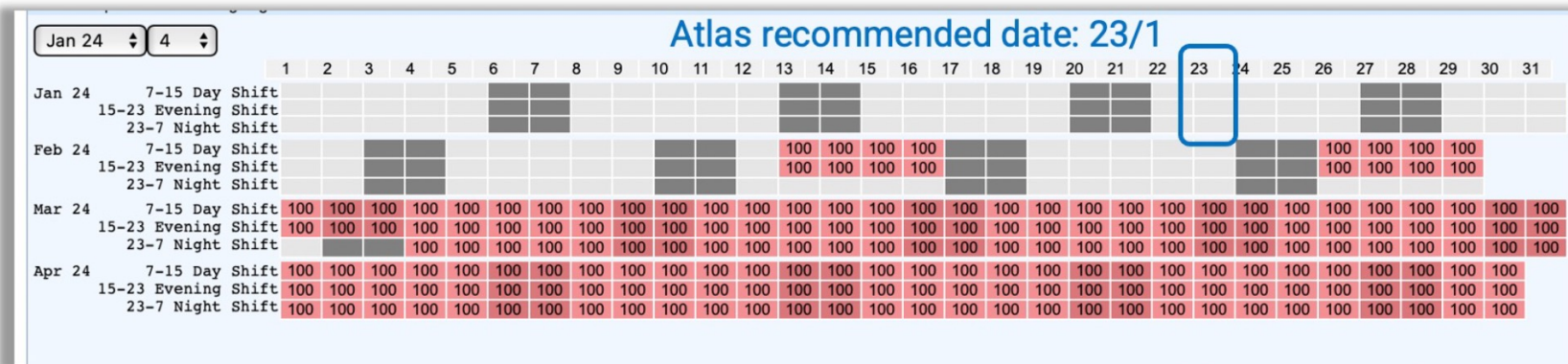


Current draft of 2024 LHCC schedule (7 Dec 2023, version 0.8b): [Link](#)



News da ATLAS: RUN3

Shift Opening



Standby Shifter's Format



- Suggestions for shift training dates for rest of the year:
 - Week 10: 6. / 7. March 2024
 - Week 17: 24. / 25. April 2024
 - Week 24: 12. / 13. June 2024 (during Tile week, TRT days)
 - alternative: Week 23: 5. / 6. June 2024 (During MD2, S&C, ITk, Muon and LAr week at the same time)
 - Week 31: 31. July / 1. August 2024 (during MD3, note 1. Aug is Swiss holiday but not a CERN holiday)
 - Week 39: 25. / 26. September 2024 (during TS2)



News da ATLAS: RUN3

- Raccomando a chi intende fare turni in Control Room di prenotarsi quanto prima
- Per alcuni desk (Shift Leader, Trigger, Run Control) c'è preoccupazione di bassa copertura
 - In passato, shift bookings si esaurivano il ~ 10 gennaio..
- Preoccupazione del Management su scarso interesse nel fare turni
 - Shifter si lamentano dei turni noiosi vs. Experts si lamentano di essere chiamati troppo dagli shifter
- Come gruppo, abbiamo dato il nostro buon contributo con turni in ACR e come Experts
 - **Grazie a tutti per la disponibilità e la dedizione**



Situazione al Muon Desk

7

Milestone 1 (13-16/2):

Still need to cover **5** slots!

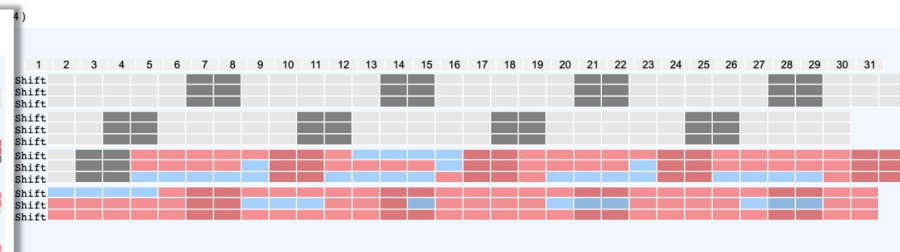
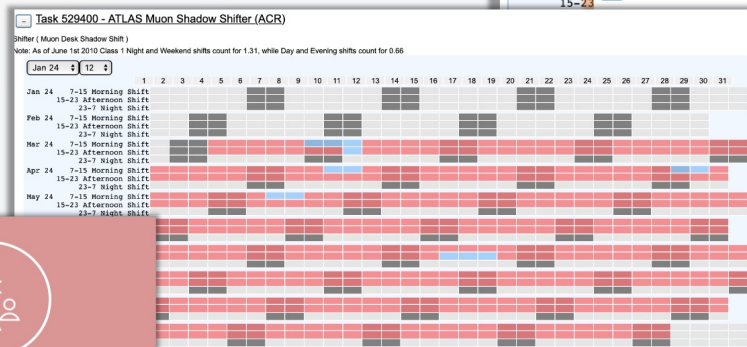
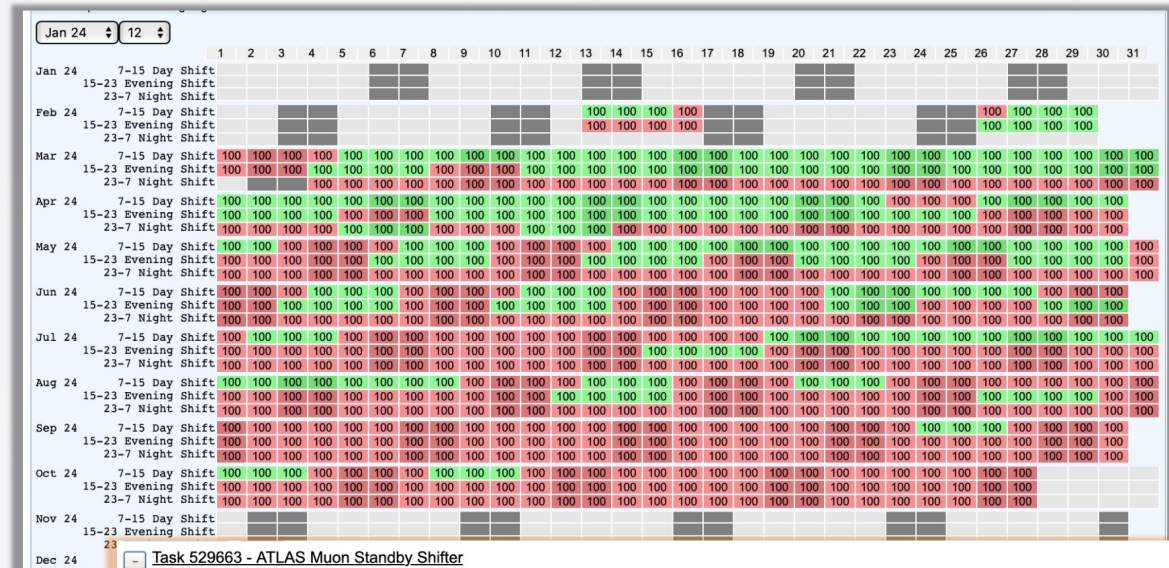
Milestone 2 (26/2-3/3):

Still need to cover **7** slots!

1st Week (4/3-10/3):

Still need to cover **12** slots!

Currently **15 shifters** booked their shifts, with one being a new experts!



25.01.2024

Muon Operations Meeting



SAPIENZA
UNIVERSITÀ DI ROMA





ABOUT

CERN Council decides to conclude cooperation with Russia and Belarus in 2024

The Organization's cooperation with the Russian Federation and the Republic of Belarus will conclude at the expiry in 2024 of the International Cooperation Agreements (ICAs)

15 DECEMBER, 2023



CERN Council Meeting in December 2023 (Image: CERN)

- ◆ The cooperation will come to an end on 27 June 2024 for the Republic of Belarus and on 30 November 2024 for the Russian Federation.
- ◆ All relations between CERN and Russian and Belarusian institutions will cease as of these dates.
- ◆ Relations continue with scientists of Russian or Belarusian nationality otherwise affiliated with CERN.



Missioni 2024

◉ Missioni 2024.

◆ Abbiamo ricevuto **62 k€** + Quota indiviso del RN (tot. 460 k€, S.J.)

Slide di ottobre 2023

- Nel 2023 avevamo ricevuto ~ **49.5 k€ (+ 21.5 k€ di sblocco SJ)**
- Nel 2022 avevamo ricevuto ~ **68.5 k€ (+ 14 k€ di sblocco SJ)**
- Richiesta per 1 posizione Similfellow PhD (2nda tornata)
Dal 2025 si pensa a revisione delle regole per Similfellow

◆ Priorità data a:

- Turni in esperimento (e training propedeutico a turni)
- Attività di commissioning (fisici) e riparazioni (tecnici) nel 2024 (Gen. Feb.+ Nov. Dic.)
- Test (Lab, Testbeam, etc.) per attività future o di R&D
- Meetings: ATLAS Week, Muon & TDAQ & ITk Week, ..

◆ Vi ricordo delle varie opportunità di essere membri dei vari Committees:

- Non solo “ATLAS Speakers Committee” ma anche TDAQ, MUONs, etc
- Compito impegnativo, ma in alcuni casi è riconosciuto dai referee con finanziamento di resp.



Elezione Spokesperson

- ◆ Alla ATLAS Week di giugno (17-21 Giugno) si vota per il nuovo Spokesperson
- ◆ Deadline per le nominations: 5 Febbraio 2024
- ◆ *“The present Spokesperson, Andreas Hoecker, having completed four years of office on 28th February 2025 is not eligible for another term.”*

Nomi che ho sentito circolare

Emanuel Monnier
Ludovico Pontecorvo
Marumi Kado
Pamela Ferrari
Klaus Monig
Stefan Willocq
Pierre Savard
Fabio Cerutti
Manuella Vinciter



Varie (1)

Nominations per Muon Run Coordination

- ◆ Deadline: fine gennaio
- ◆ Proposta di creare un team di Muon Run Coordinators che assumeranno l'incarico a rotazione
- ◆ Il Team verrà poi coordinato dal Muon Operations Coordinator

Programma di Summer Student al CERN

- ◆ Sottomissione delle proposal di progetto che si intende coordinare, con indicazioni dell'attività, impegno su physics/engineering/computing, requisiti necessari per il progetto, etc.
- ◆ Deadline: 30 gennaio
- ◆ *“One aim of this programme is to give the students exposure to fields other than their main field of study as well as a taste of what it is like to work in a dynamic research environment.”*

HEPscape room

- ◆ Escape room a tema LHC ideata all'interno della CC3M
- ◆ L'Escape room è stata montata (grazie ai tecnici di Napoli) a Città della Scienza a Novembre
- ◆ Enorme contributo dei nostri giovani e dei colleghi di Roma1 (F. Cavallari, M. Bauce, L. Soffi)
- ◆ Circa 500 ospiti nei giorni di funzionamento (24 turni da Martedì a Domenica)





Backup