

# Piano di lavoro di DAΦNE e richieste per i servizi della DA



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on behalf of the DAΦNE Team

*CS Meeting Feb 8<sup>th</sup> 2024, LNF, Frascati*



# DAΦNE Activity so far

## ***Jan 18<sup>th</sup> 2024***

Start of the DAFNE accelerator complex with LINAC warm up, shifts with two operators.

## ***Jan 22<sup>nd</sup> 2024***

Radioprotection periodical checks

## ***Jan 25<sup>th</sup> 2024***

Start of the SIDDHARTA-2 run, which before winter was scheduled for Jan 23<sup>rd</sup>, btw preliminary program discussed with the experiment foresaw an earlier starting date.

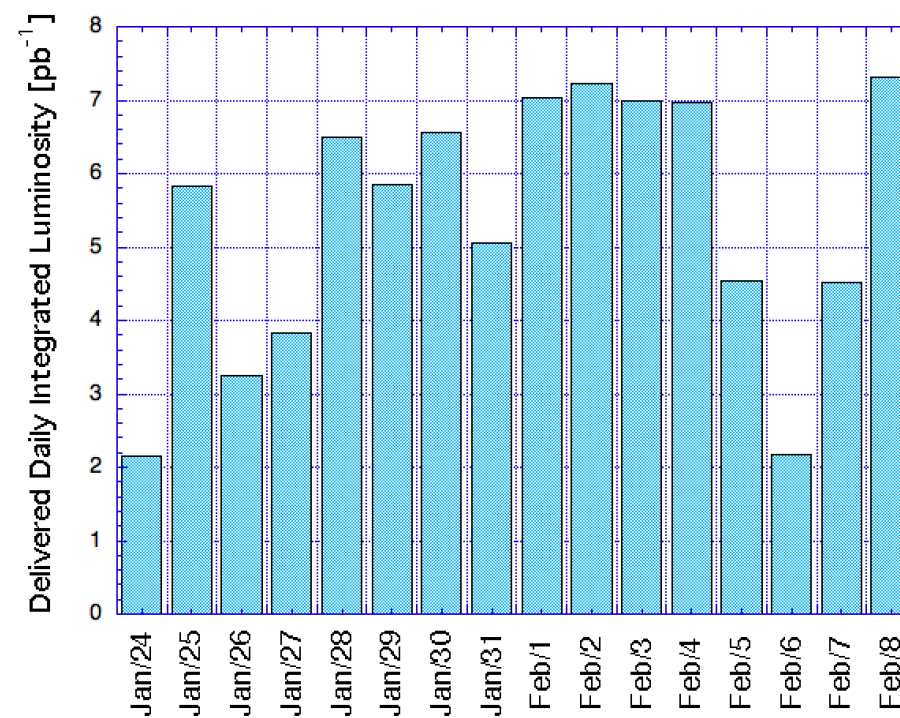
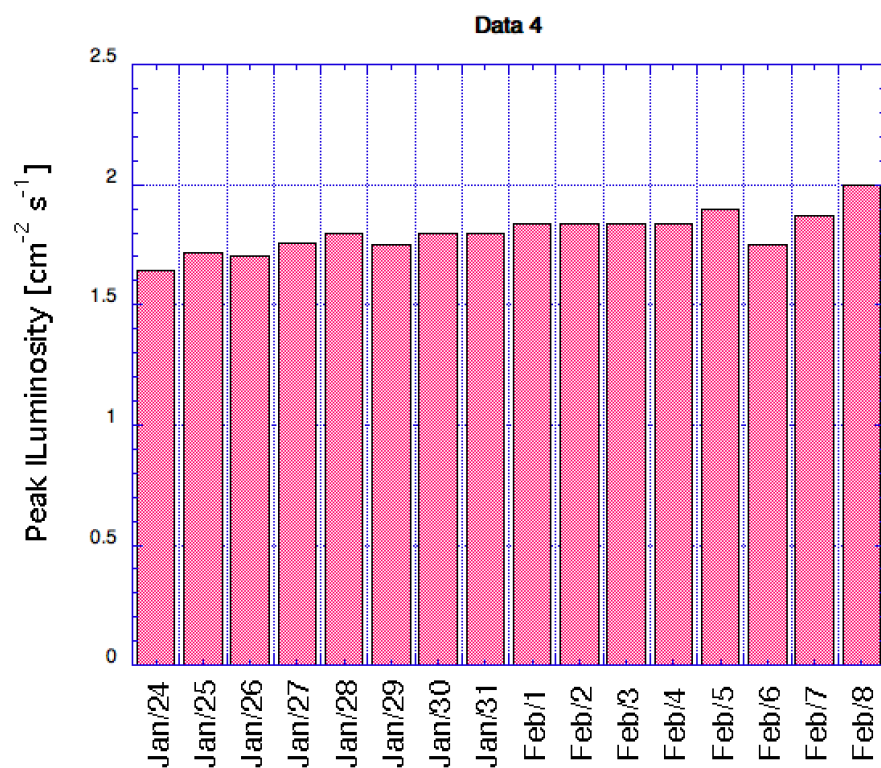
## ***Jan 26<sup>th</sup> 2024***

SIDDHARTA-2 started a calibration run using a Hydrogen target. In this configuration DAFNE delivered about 59 pb<sup>-1</sup>.

## ***Feb 5<sup>th</sup>***

Hydrogen target was replaced with the Deuterium one.

# DAΦNE Performances



*Very low fault rate.*



# DAFNE tentative Plan

## ***May***

One week for general maintenance, fixed according recommendation coming from the fluid cooling system DT.

## ***Summer 2024***

The exact end of the run was not yet defined probably discussed in the next DS meeting.

DAFNE accelerator complex also power BTF and LDS.



# Magnets & PSs

Critical issues due to the high fault rate affecting the IGBT drive board installed on the DanFysik PSs have been overcome:

new spare parts are available,  
tools and systematic methods for repair have been defined.

## **Mending:**

- some DanFysik control panel,
- 1 IGBT drive board
- 1 Skew QUAD PS (FUG),
- concerning Accumulator magnet PS:
  - several fault affected DHA\*001, SCR cooling plates need interventions,
  - SXPA\* do not reach the set point during the commutation process.
- CHV in TLs still cannot be reliably controlled.

*Assistance during the run to face and fix possible unexpected faults.*



## Control System

- Implement DR closed orbit measurement,
- restore the the control system patch avoiding faulty behaviour of the HazeMeyer PS serving the CHV in the TLs,
- implement some minor, but not negligible adjustments on the Control System graphic interface windows (fonts, size, names alignment, closing box ...),
- injector System Commutation procedure exhibits anomalous failure rate,
- avoid different beam lifetime evaluation from applications (MR\_taumeter.vi ) running on consoles using different LINUX versions,
- *complete tests on the old SWITCHES which have experienced several time consuming faults (suggested by R. Gargana ... probably already done).*



## Diagnostics and FBKs

- Restore full operation of the LIBERA modules in the Accumulator,
- Integrate the tune measurement in the Accumulator in the application used for MRs tune measurements.

### Scientific program

Completing tools optimization to perform comprehensive e-cloud measurements in the positron ring.

## Vacuum for RF system

- *Repair the tuner of the Accumulator RF system*



# Cooling and Fluid Systems

- General maintenance of all the systems: cooling towers, filters, resins, water pumps.
- It's worth reminding that the system should keep the hall temperature at  $23^{\circ} \pm 0.5^{\circ}$ .





## DA Secretariat

Support for Fondi FAI procedures to host 2 – 3 people  
if the submitted requests will be founded.



# Operation Group

The **LNF Accelerator Operation Group** provides support systematically to the experimental activities on:

DAΦNE collider,  
BTF (2 lines),  
LDS,  
TEX,  
SPARCLab.

**Shifts relies on 7 crews including 4 technicians each**

Due to retirements and non-replacement Operation Group lacks 3 members,  
1 position is filled with two colleagues working alternatively,  
1 more colleague from the RF service helps sporadically.

**Shift organization and management, which with a full staff is done by a purpose build application has become a time-consuming nightmare.**



# Run Coordinator Calendar

2024		Events & Holiday
18 ÷ 22 Jan	<del>Buonomo Bruno</del>	
22 Jan ÷ 29 Jan	<del>Foggetta Luca</del>	
29 Jan ÷ 5 Feb	<del>Ozgur Etisken</del>	
5 Feb ÷ 12 Feb	<del>Spampinati Simone</del>	
12 ÷ 19 Feb	De Santis Antonio	
19 ÷ 26 Feb	Zobov Mikhail	
26 Feb ÷ 4 Mar	Franzini Giovanni	
4 ÷ 11 Mar	Piersanti Luca	
11 ÷ 18 Mar	<del>Behtouei Mostafa</del>	
18 ÷ 25 Mar	De Santis Antonio	
25 Mar ÷ 1 Apr	Bilanishvili Shalva	Mar 31 <sup>st</sup> Easter
1 ÷ 8 Apr	<del>Vannozzi Alessandro</del>	
8 ÷ 15 Apr	<del>Liedl Andrea</del>	
15 ÷ 22 Apr	<del>Ciarma Andrea</del>	
22 ÷ 29 Apr	<del>Boscolo Manuela</del>	Apr 25 <sup>th</sup>
29 Apr ÷ 6 May	Spampinati Simone	May 1 <sup>st</sup>
6 May ÷ 13 May	Franzini Giovanni	
13 ÷ 20 May	Zobov Mikhail	
20 ÷ 27 May	Stella Angelo	27 - 28 May SciCom 19 - 24 May IPAC 2024



*Thank you*

# DAΦNE hall

- Remove garbage
- Remove TEX large box ( had to be there for a week)