

# JUNO Computing @ CNAF

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#### **INFN-CNAF: Centro Nazionale Analisi Fotogrammi**

The INFN-CNAF is one of the 5 data-computing centers for the JUNO collaboration.

Since 2003, CNAF has hosted the Italian Tier-1 data center providing the resources, support and services needed for data storage and distribution, data processing and analysis, and Monte Carlo for LHC experiments and, more recently, for many astro-particle and neutrino-physics experiments like JUNO.

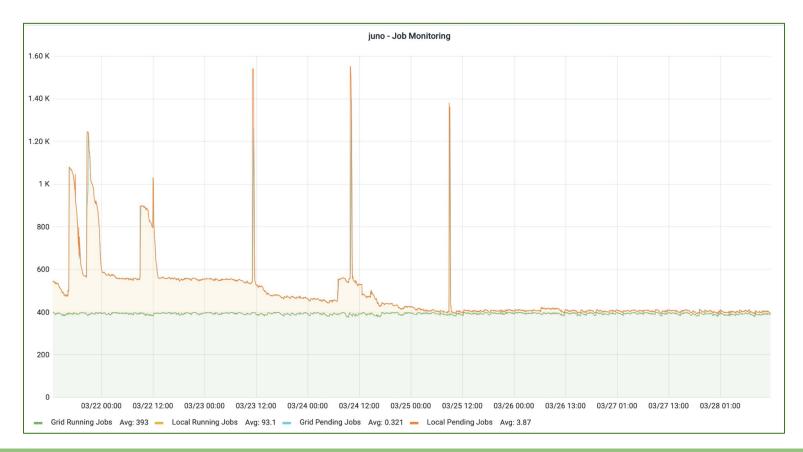
Current CPU pledge:~ 450 jobsin  $2023 \rightarrow same, 450 jobs$ Current Storage pledge:1101 TB(already used at 89%)in  $2023 \rightarrow 2.1$  PBCurrent Tape pledge:500 TB(already used at 1%)in  $2023 \rightarrow 1$  PB

We currently have 153 JUNO users: 79 active, 13 silent (no access since Dec 2021), 61 non-active

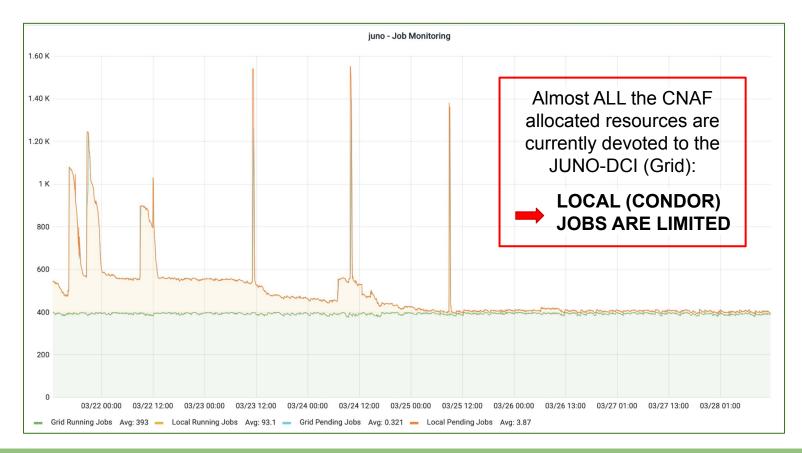
Condor batch jobs only. Interactive jobs on ui-juno are not possible: we only have 4 core & 32GB ram.

As regards the personal **Disk Space**, the proposal was that all single users have a **<u>500GB quota limit</u>**. This quota is monitored... but is far to be achieved.

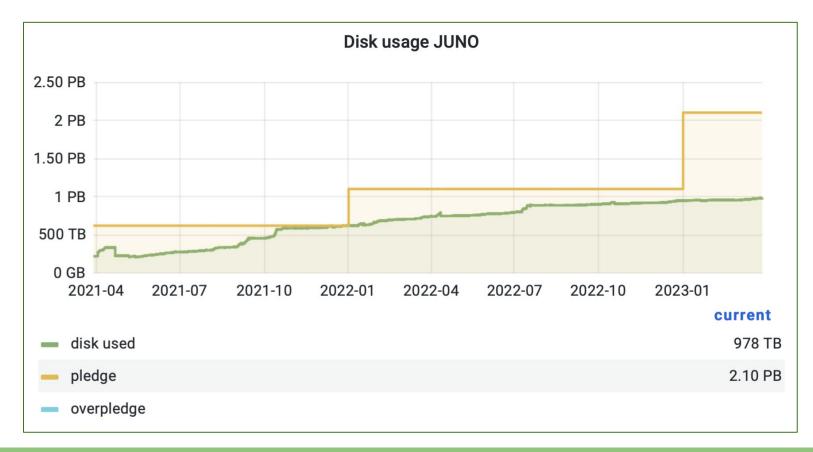
### JUNO @ CNAF: CPU performance



### JUNO @ CNAF: CPU performance



### JUNO @ CNAF: STORAGE performance



## JUNO @ CNAF: STORAGE performance

#### **PRINCIPAL ISSUE:**

About 30 users (non-active too!) currently do not match the personal area criteria (keep it < 500 GB).

Same situation (although, less severe) for the HOME area.

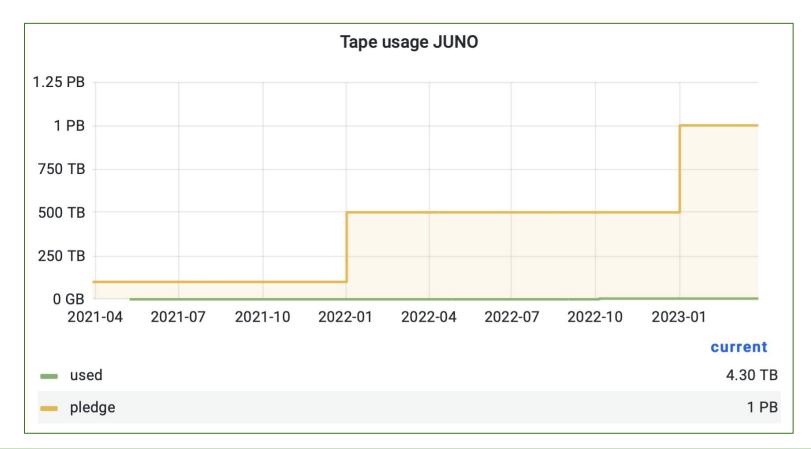
This has to be addressed in the near future. Otherwise <u>we may not be able to host</u> <u>any JUNO data</u> when the time comes.

#	USER	2023/03/27
1	ameraviglia	33963
2	apekshajuno	1923
3	arshakjafar	4109
4	bjelmini	1653
5	c.genster	973
6	csakli_simon	8109
7	dbasilicojuno	17777
8	fenggao	5486
9	huang	3072
10	jaydatta	19070
11	jpandre	666
12	julia_sawatzki	2179
13	kampmann	9952
14	lucapelicci	31819
15	martellini	42658

16	mayer_matthias	17700	
17	mberettajuno	6714	
18	mcolomer	226261	
19	michele.montuschi	1240	
20	mmalabarba	16102	
21	montinip	4436	
22	mrifai	13395	
23	nikhilmohan	51076	
24	nrkhanchowdhury	23702	
25	rwirth	11445	
26	salaman	3792	
27	sgiulio	4368	
28	vcerrone	8972	
29	xuyujuno	880	
30	zwickel_sebastian	1504	
infos in GB (i.e. 226261 $\rightarrow$ 226.2 TB)			

infos in GB (i.e. 226261  $\rightarrow$  226.2 TB)

#### JUNO @ CNAF: TAPE performance



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## **CNAF: useful infos in the JUNO wiki**

#### To get yourself a CNAF account:

Fill the request form https://www.cnaf.infn.it/wp-content/uploads/2022/03/Request-CNAF-account.pdf and send it via email to: <u>sysop@cnaf.infn.it</u>, <u>user-support@lists.cnaf.infn.it</u>, <u>alessandra.re@mi.infn.it</u> N.B. In case you already have a CNAF account for experiments other than JUNO, you must request a new one!

Inside the "Offline" section of the wiki, you can find several useful information to setup your environment and run your JUNO simulations:

**To optimize your access procedure to ui-juno:** https://juno.ihep.ac.cn/mediawiki/index.php/Offline:Account/CNAF

**To configure your environment and use the JUNO software:** https://juno.ihep.ac.cn/mediawiki/index.php/Offline:SetupCNAF

#### To submit JUNO batch jobs at CNAF:

https://juno.ihep.ac.cn/mediawiki/index.php/Offline:Submitjob/CNAF