# How to submit jobs on the INFN-CNAF cluster

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## Introdution

• 12 dedicated nodes on the CNAF HPC cluster which run in LSF  $\rightarrow$  32 cores per node with HT

(more information will be provided during the next ABP-CWG meeting)

HOST_NAME	STATUS	JL/U	MAX	NJOBS	RUN	SSUSP	USUSP	RSV
hpc-201-11-01-a	closed	-	64	64	64	0	0	0
hpc-201-11-01-b	closed	-	64	0	0	0	0	0
hpc-201-11-02-a	closed	-	64	64	64	0	0	0
hpc-201-11-02-b	closed		64	64	64	0	0	0
hpc-201-11-03-a	closed	- A	64	64	64	0	0	0
hpc-201-11-03-b	closed		64	64	64	0	0	0
hpc-201-11-04-a	closed	-	64	64	64	0	0	0
hpc-201-11-04-b	closed	-	64	64	64	0	0	0
hpc-201-11-05-a	closed		64	64	64	0	0	0
hpc-201-11-05-b	closed		64	64	64	0	0	0
hpc-201-11-06-a	closed	-	64	64	64	0	0	0
hpc-201-11-06-b	closed		64	64	64	0	0	0



#### Introduction

For information about getting an account, please send an email to abp-cwg-admin@cern.ch
 Once your account has been setup, log in on the ssh client using the command

[username]@bastion.cnaf.infn.it

Last login: Wed Jul 5 13:48:24 on ttys000 annalisa:~ annalisa\$ ssh giadarol@bastion.cnaf.infn.it giadarol@bastion.cnaf.infn.it's password: Last login: Wed Jul 5 13:33:02 2017 from 194.12.167.239 **INFN CNAF** - Bastion Host (login03.cnaf.infn.it) In case of problems, mail to: sysop@cnaf.infn.it N.B.: Home directory content is not backupped and a guota is applied. soft quota = 100 MB (guaranteed) hard quota = 200 MB (exceeding data may be periodically deleted to reach soft limit, in function of home dir space) "/scratch" is temporary unavailable. \_\_\_\_\_



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-bash-4.1\$ ssh ui-hpc2.cr.cnaf.infn.it | - To access the cluster log into

## Introduction

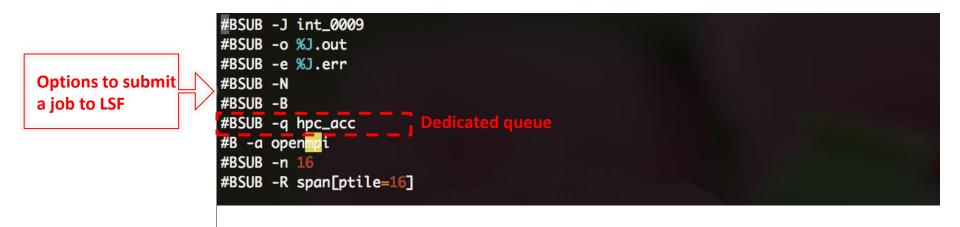
- For information about getting an account, please send an email to abp-cwg-admin@cern.ch
  Once your account has been setup, log in on the ssh client using the command
  [username]@bastion.cnaf.infn.it
  - To access to the cluster from bastion log into: ui-hpc2.cr.cnaf.infn.it
- Information on how to setup python (including mpi4py) without admin rights in the working folder can be fount at : <u>https://github.com/PyCOMPLETE/PyECLOUD/wiki/Setup-</u> python-(including-mpi4py)-without-admin-rights

<pre>[(py2.7) [giadarol@ui-hpc2 sim_workspace_PyECPyHT]\$ ls</pre>		
BG017_HLLHC_450GeV_dipOFF_quadON_Qpscan_oct-2_damperON_ppbscan	PyECLOUD	python27
BG017_HLLHC_450GeV_dipOFF_quadON_Qpscan_oct-2_damperON_ppbscan_WRONG	PyHEADTAIL	python_src
download_and_install_PyECPyHT.sh	PyKLU	test_sims
example_PyECPyHT_CNAF_study	PyPARIS	virtualenvs
git	PyPIC	
LHC_450GeV_dipOFF_quadON_Qp0_oct0_damperOFF_ppbscan_lengthscan	PySUSSIX	



# How to submit jobs

• Example for submitting single batch jobs





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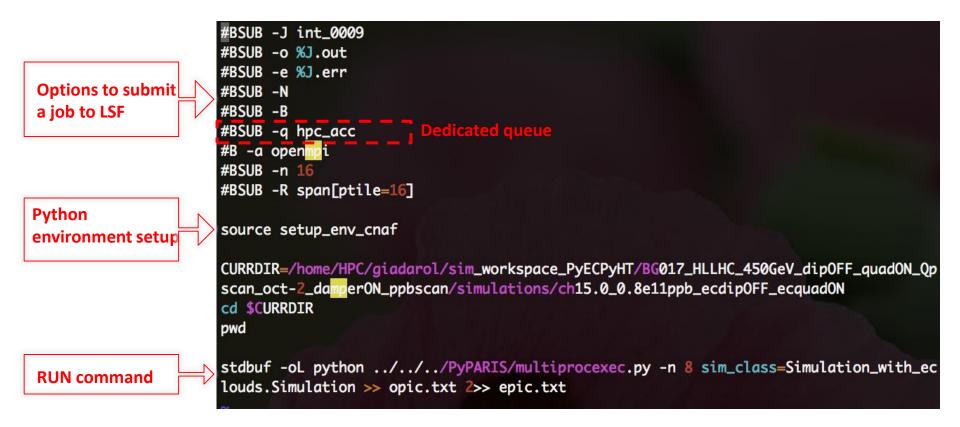
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#### More information can be found at:

https://wiki.infn.it/strutture/cnaf/clusterhpc/using\_the\_cnaf\_hpc\_cluster



ABP-CWG Meeting

(py2.7)	[giadaro	ol@ui-	npc2 simulat	tions]\$ bjobs	5			
JOBID	USER	STAT	QUEUE	FROM_HOST	EXEC_HOST	JOB_NAME	SUBMI	T_TIME
78197	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0033	Jul	5 08:37
78198	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0013	Jul	5 08:37
78199	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0048	Jul	5 08:57
78283	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0012	Jul	5 13:16
78200	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0017	Jul	5 09:07
78202	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0003	Jul	5 09:39
78203	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0016	Jul	5 09:46
78205	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0005	Jul	5 09:52
78204	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0042	Jul	5 09:48
78227	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0008	Jul	5 12:46
78242	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0006	Jul	5 12:53
78252	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0019	Jul	5 12:59
78206	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0025	Jul	5 10:01
78207	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0023	Jul	5 10:10
78209	giadaro	RUN	hpc_acc	hpc-201-11-	16*hpc-201-	int_0049	Jul	5 10:29

## Thanks for your attention!

