

# Access LEONARDO @ CINECA



SCIENTIFIC &  
DATA-INTENSIVE COMPUTING

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# The Leonardo cluster

leonardo-supercomputer.cineca.eu



Rank	System	Cores	Rmax (PFlop/s)	Rpeak (PFlop/s)	Power (kW)
1	<b>Frontier</b> - HPE Cray EX235a, AMD Optimized 3rd Generation EPYC 64C 2GHz, AMD Instinct MI250X, Slingshot-11, HPE DOE/SC/Oak Ridge National Laboratory United States	8,699,904	1,194.00	1,679.82	22,703
2	<b>Aurora</b> - HPE Cray EX - Intel Exascale Compute Blade, Xeon CPU Max 9470 52C 2.4GHz, Intel Data Center GPU Max, Slingshot-11, Intel DOE/SC/Argonne National Laboratory United States	4,742,808	585.34	1,059.33	24,687
3	<b>Eagle</b> - Microsoft NDv5, Xeon Platinum 8480C 48C 2GHz, NVIDIA H100, NVIDIA Infiniband NDR, Microsoft Microsoft Azure United States	1,123,200	561.20	846.84	
4	<b>Supercomputer Fugaku</b> - Supercomputer Fugaku, A64FX 48C 2.2GHz, Tofu interconnect D, Fujitsu RIKEN Center for Computational Science Japan	7,630,848	442.01	537.21	29,899
5	<b>LUMI</b> - HPE Cray EX235a, AMD Optimized 3rd Generation EPYC 64C 2GHz, AMD Instinct MI250X, Slingshot-11, HPE EuroHPC/CSC Finland	2,752,704	379.70	531.51	7,107
6	<b>Leonardo</b> - BullSequana XH2000, Xeon Platinum 8358 32C 2.6GHz, NVIDIA A100 SXM4 64 GB, Quad-rail NVIDIA HDR100 Infiniband, EVIDEN EuroHPC/CINECA Italy	1,824,768	238.70	304.47	7,404

## 3456 boost nodes

1x

Intel Xeon 32cores  
8x64 GB DDR4 3.2GHz

4x

Nvidia Ampere  
64GB HBM2 (gpu)

2x

Nvidia HDR 2x100Gb/s

## 1536 data-centric nodes

2x

Intel Sapphire Rapids  
56cores

48x32 GB DDR5 4.8GHz

3x

Nvidia HDR 1x100Gb/s

# Getting a user

## 3 simple steps:

1. register at CINECA

[User Registration Page](#)

2. once you have your user, set-up the 2FA (mandatory)

[Connecting with 2FA](#)

3. let us know about your user name so that we can add you on a project

# The INAF's PLEIADI cluster

## A small in-house system that allows you to experiment

1. generate an SSH key (RSA, DSA, ed25519, ...) and send it to me
2. I will communicate you your username on the **amonra.oats.inaf.it** cluster

A small system:

12 nodes with 256 GB, 48 nodes with 128 GB

6 nodi with 256 GB and 1 Tesla K80 each

that's all, have fun



“So long  
and thanks  
for all the fish”