Access to HPC resources in Italy and Europe

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Access to HPC resources: CINECA aims and basic principles

Our objectives:

- ✓ Providing Italian and European researchers with an advanced computational environment

- ✓ Supporting Italian researcher for increasing their competitiveness

- ✓ Following Italian researchers in their path towards Tier 0

- ✓ Soliciting large-scale and computationally intensive projects

Basic principles:

- ✓ Transparency
- ✓ Fairness
- ✓ Conflict of Interest management
- ✓ Confidentiality

How to get HPC resources

- Peer reviewed projects:
  you can submit a project that will be reviewed. If you win you will get the needed resources for free

    - Local (Lombardia), National, Europe

- No selection:
  some Institutions buy an amount of resources to be distributed among the research staff

Peer reviewed projects

- Resources payed by
  - Lombardia   → LISA
  - Italy   → ISCRA
  - Europe   → PRACE

- On race with other researchers
- Define required resources and expected results
- Write final report and possibly justify unattained objectives

Peer reviewed selection

LISA	ISCRA	PRACE
Co-funded by Regione Lombardia	Italian Super Computing Resource Allocation	Partnership for advanced Computing in europe
Lombardy researchers	Italian researchers	European researchers

LISA: **http://hpc.cineca.it/services/lisa**
ISCRA: **http://hpc.cineca.it/services/iscra**
PRACE: **http://www.prace-ri.eu/Call-Announcements**

HPC offer in Italy: ISCRA

Class B: Standard Projects; two calls / year

max 2M core hours (BDW) / 4M core-h (KNL)
3 months before the project gets access to HPC resources
duration: 12 months

Class C: Small Projects

continuous submission, 1 selection per month
max 200K core-h (Galileo, BDW) / 400K core-h (KNL)
about 15 days is required for activating the project.
duration: 9 months

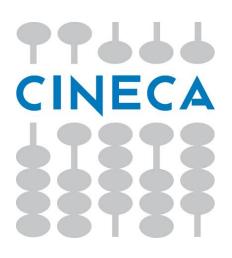**Trial:**   on demand

HPC offer in Lombardia: LISA

Two different classes of proposals:
- A "**production**" project is characterized by a mature proposal, ready to run on the HPC machines, based on methods and software already tested, with duration 12 months and a request of core hours between 200K and 2M (BDW) or between 400K and 4M on KNL;

- A "**development**" project is a proposal with a low request of HPC resources, but a high impact on the development aspects of software and/or computational methods and/or on porting on Cineca HPC infrastructure and a maximum **duration of 6 months**.

L'offerta HPC in Europa: PRACE

E u r o p e

- ## **Preparatory Access**
    - Intended for preliminary resource use required to prepare proposals for Project Access
    - Technical review

- ## **Project Access**
    - Intended for individual researchers and research groups including multi-national research groups
    - Technical and Scientific review

Call for proposals calendar

- **ISCRA** Call:

  - **Class B:** Next call: 1st June 2017

  - **Class C**: cut-off dates each month at the 15th.

- **PRACE Call:**

  - Project Access: **Open in March**

  - Preparatory access: continuously open call

- **LISA Call:** No open call

No selection resources

- Conventions / collaborations / agreements

  - no need to present a project

  - no need to write relations

  - no consumption of resources obtained by selection

- Conventions / collaborations / agreements reserved to Research Entities

Convenzione INFN
Convenzione Università degli studi di Milano Bicocca
Convenzione Fondazione Istituto Italiano Tecnologia
Convenzione Politecnico di Milano
Convenzione Scuola Internazionale Superiore di Studi Avanzati, SISSA
Convenzione Università degli Studi di Milano
Convenzione International Centre for Theoretical Physics, ICTP
Convenzione Azienda Ospedaliera Lazzaro Spallanzani
Convenzione Consiglio Nazionale Ricerche, CNR – cnrS3
Convenzione Università degli Studi di Trieste
Convenzione Istituto Nazionale di Oceanografia e di Geofisica Sperimentale, OGS
Convenzione Università degli Studi di Bergamo
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