Giornate INAF della RSN 2

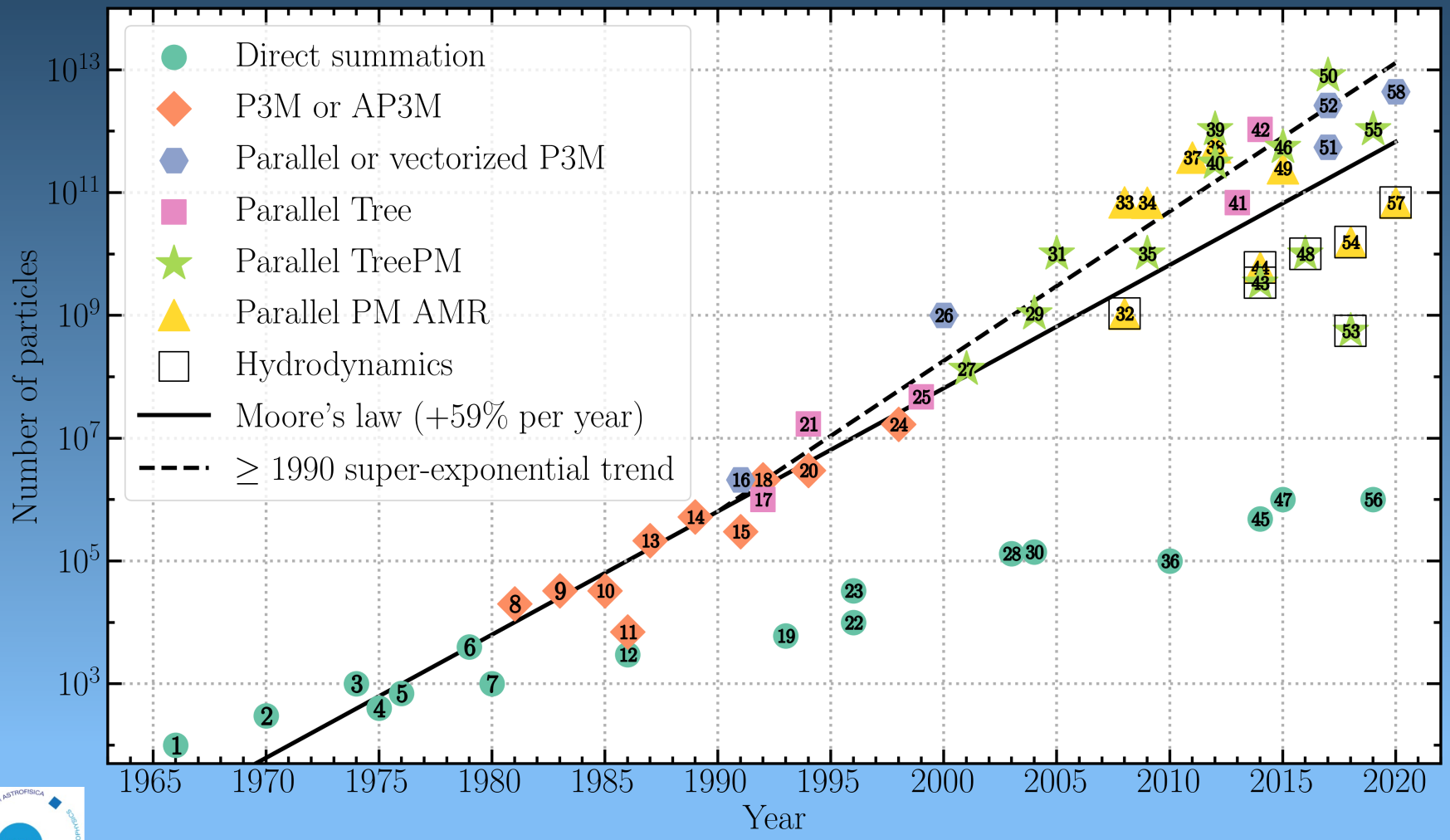
The articulations of the INAF-DS: the challenge of Computing and Big Data (USC-C)

Andrea Possenti

Neaples - OACN - 14 Jan 2026

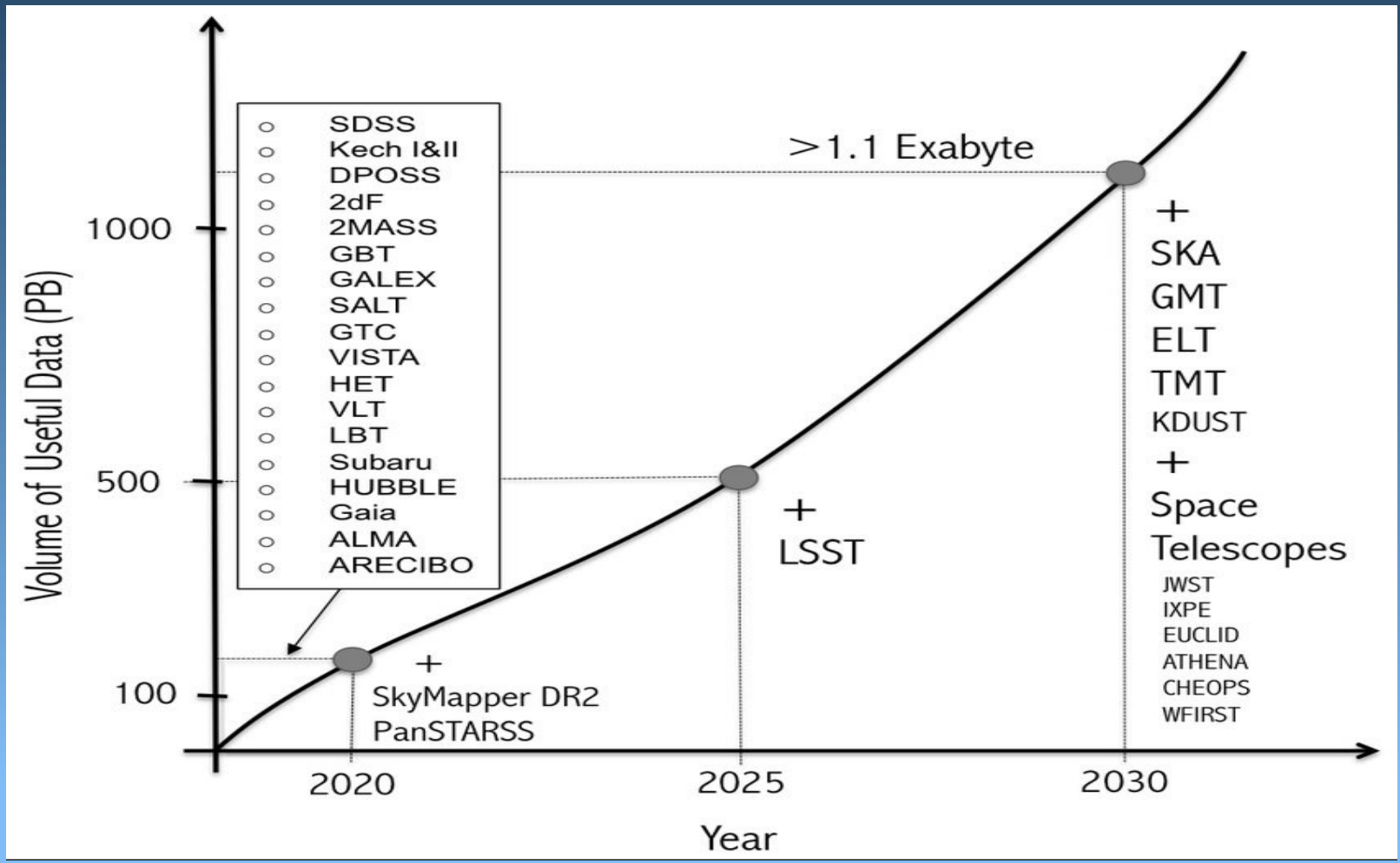
… the Challenge: Computing …

[F. Leclercq 2023]



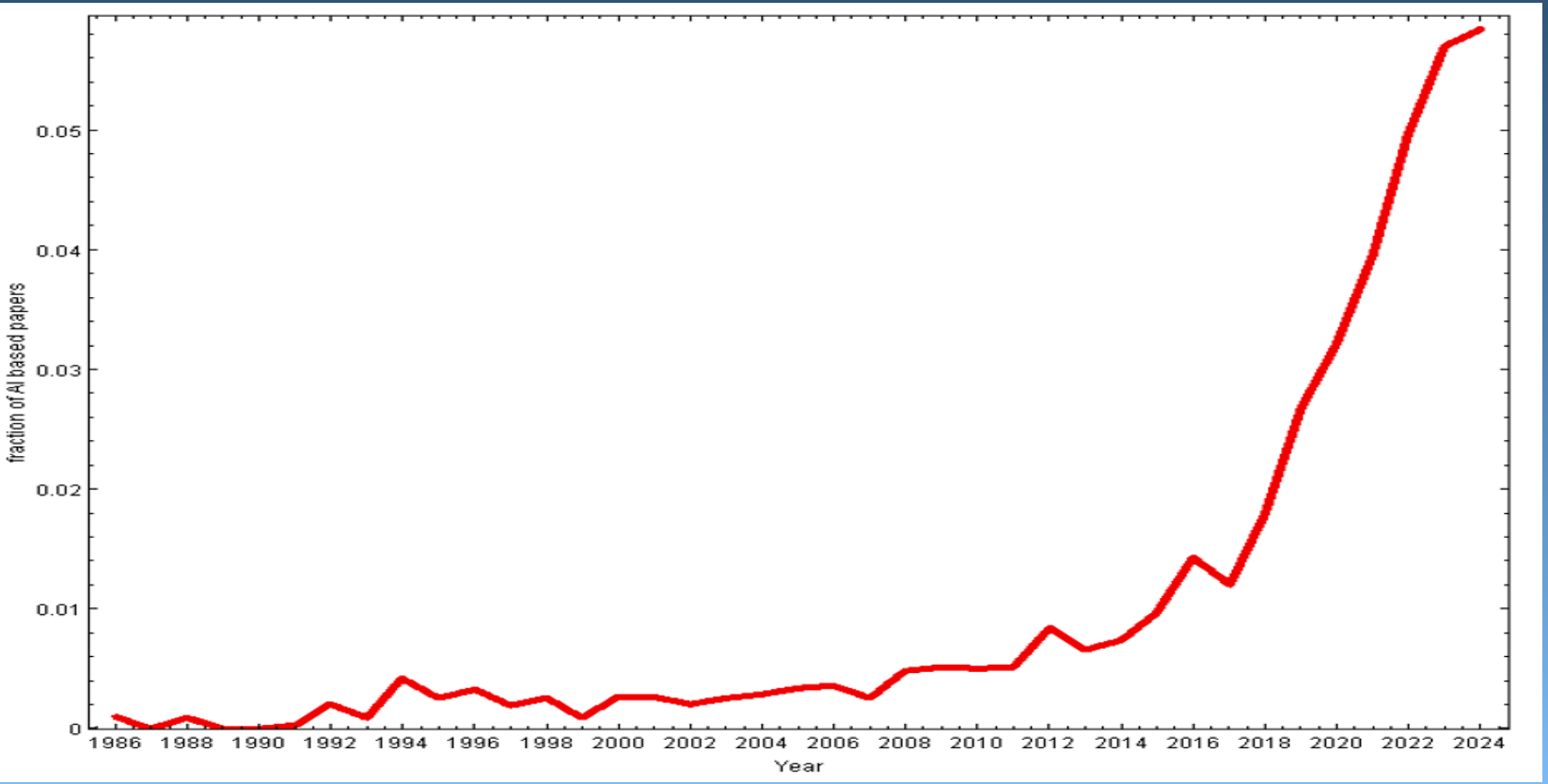
… the Challenge: Big Data …

[R. Rosa 2021]



… the new frontier: ML & AI …

[S. Cavuoti 2025]



2027 : 10 Billion Euro AI Factory in EU
IT4LY: one of the 13 AI Factory Europee. **Acquisition of a supercomputer optimized for applications of AI**
DAMA Tecnopolo Data Manifattura Emilia-Romagna di Bologna

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… the new frontier: ML & AI …

[Knapic 2025] [Ginolfi, Lucatello 2025]

- Speeding up processes: neural emulators to replace "expensive" models
- Approximate Bayesian inference with normalizing flows (neural posterior estimation)
- Discovering hidden patterns in the inner layers of multimodal models
- Hypothesis generation via fine-tuned LLMs on astrophysical literature
- Optimization of real-time analysis
- Simultaneous analysis of multimodal data

- Archives as mines
- Planning the “digging”
- New science outcomes from data taken for other aims

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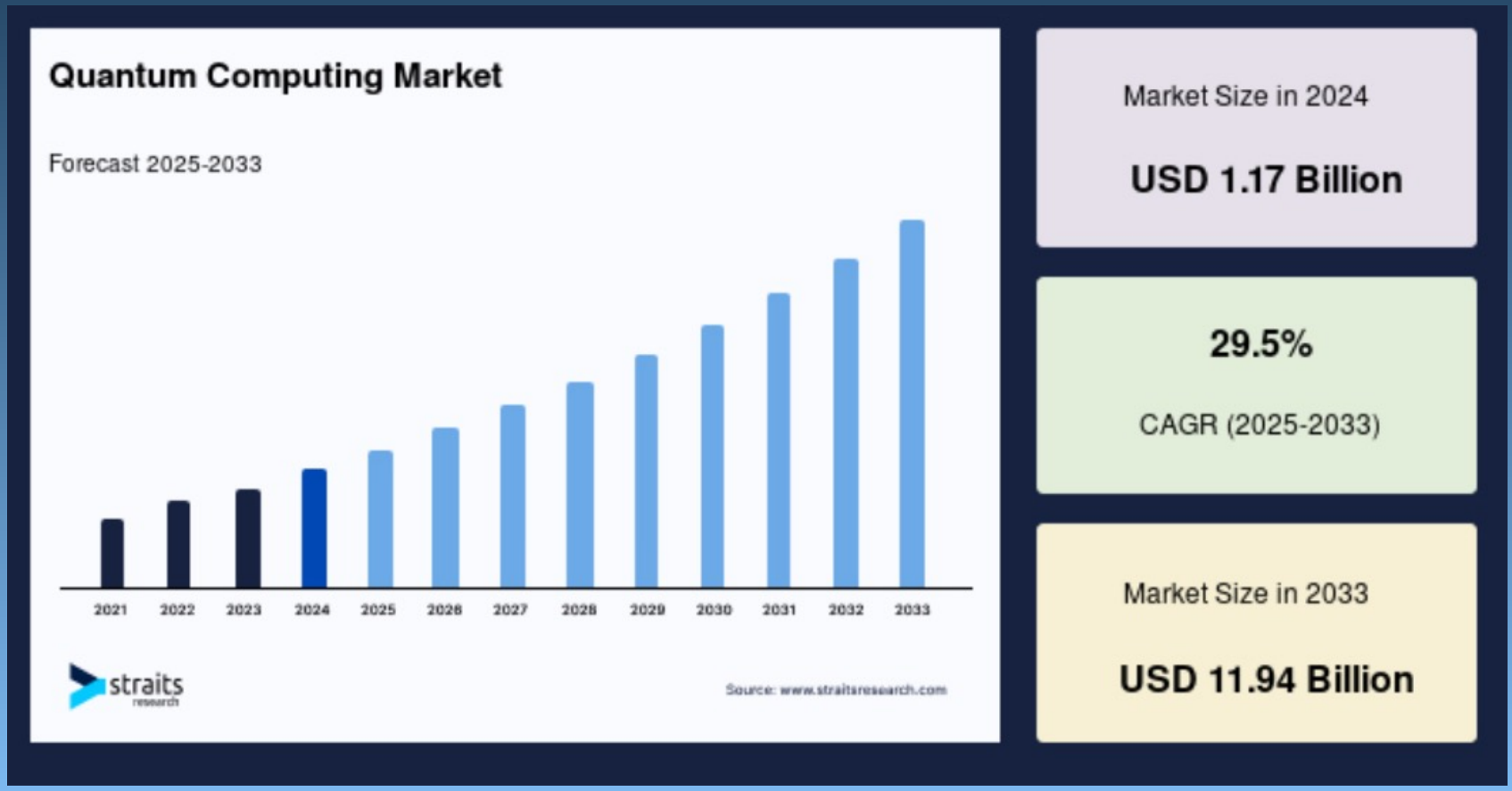
… the new frontier: Quantum ICT …



… the new frontier: Quantum ICT …

- **Training activities: High-performance and quantum computing, University of Bologna**
- Members of the Alleanza Quantistica Italiana (AQI)
- Members of ICSC, National Research Centre for High Performance Computing, Big Data and Quantum Computing, spoke 10
- Many collaborations with Italian Universities

Main Aims of USC C-Computing

The main medium-long term objective of USC- C is **the creation of a computing ecosystem for INAF**, capable of supporting, for the next few decades, the current very high competitiveness of the members of INAF in the international arena

Implementing step 1:

Growing the hardware capabilities (Computing and Archiving), and **making them available to the INAF community** in general, and **optimized to support the large international projects** in which INAF is involved

The available INAF national facility: Pleiadi

- Provides computing resources for simulations, data analysis, modelling, and large-scale processing for research projects (INAF, PRIN, European projects, missions, etc.).
- Integrates HPC/HTC compute, data storage/work storage, and long-term data preservation capabilities.
- User access **via competitive call process**

Core Components

- Compute infrastructure
  - PLEIADI CPU clusters
  - PLEIADI-GPU clusters for GPU-accelerated workloads
  - Access to CINECA's Leonardo BOOSTER (Tier-0 class HPC) via MoU
- Archiving & Data Services
  - Work storage tied to active projects
  - Long-term data preservation services (IA2) – tape-based, FAIR-aligned

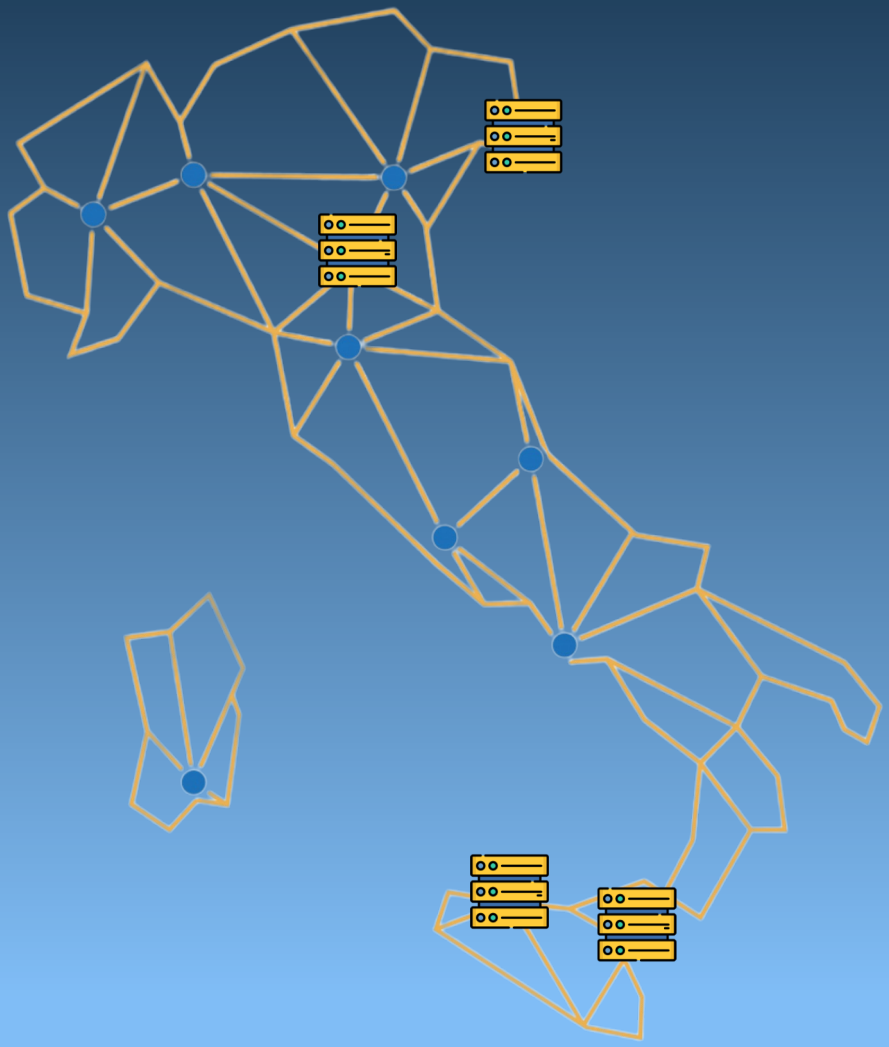
Distributed Architecture/ Resources

PLEIADI is **distributed across four INAF sites**:

- IRA Bologna (CPU nodes)
- OA Catania (CPU & GPU nodes)
- OA Trieste (CPU & GPU nodes)
- OA Palermo (GPU nodes)

Architecture Highlights

- Each site hosts:
  - Login/frontend node(s)
  - Compute nodes
  - Parallel file system storage
  - High-speed interconnection
- Workload managed by **SLURM** for job scheduling and resource allocation



Leonardo Booster (CINECA)

Leonardo is the Italian national Tier-0 high-performance computing system hosted at CINECA and **one of the most powerful supercomputers in Europe**.

Key characteristics

- Pre-exascale class HPC system
- Optimized for large-scale parallel and data-intensive workloads
- Designed for advanced simulations, AI, and high-end scientific applications

Integration with PLEIADI

- Access provided through the **INAF-CINECA agreement**
- Resources allocated within the same call framework as PLEIADI
- Leonardo BOOSTER is the reference partition for INAF users
  - 1 Standard Hour = 1 Core Hour on Leonardo BOOSTER

Scientific value

- Enables scalability beyond INAF internal infrastructure
- Complements PLEIADI for:
  - Large-scale simulations
  - Highly parallel workloads

The Data Curation Pillar: IA2

- Italian Astronomical Archives (IA2) and services https://www.ia2.inaf.it/ institutional actions:
  - **Distributed storage** for telescopes, instruments, satellites or collaborations;
  - **Storage of science products** and preservation
    - http://vospace.ia2.inaf.it/ui/ ; https://www.ia2.inaf.it/index.php/ia2-services/data-sharing-preservation)
  - **Support services** (Workflow management Systems, Twiki, DOI, preservation, user home access);
  - **Science gateway** (connection of analysis tools to archives and vice versa - Data Flow - Connection with Services) - under deployment;
  - Local Archives support (help in definition of services and politics);
  - Support for the definition of Data Models and Data Management Plans;
  - Data access and data secure access
    - Development of Web interfaces;
    - Development of Authentication & Authorization tools;
    - Studies for the Data transfer optimization;
- **Open Access (Data) and FAIR**
    - Implementation of Open Data policies;
    - Implementation of Findable Accessible Interoperable Reusable principles;
    - DOI INAF domain;
- Virtual Observatory http://www.vobs.it/en/
- Training :
  - Data Management Plans;
  - Data Models;
  - Data organization, data preservation;
  - Data management and transfer;
  - Introduction to the Virtual Observatory;
  - Data Bases.
- Working team: 8 staff (Trieste, OARoma, IRA-Bo) + 1 collaborator
- Affiliates: > 10 staff (Trieste, OAPa, IRA-Bo, OACa, OAPd, OARoma, OAAb, OATo, IAPS Roma, OACapodimonte…)

HW:

- OATs :
  - 2 PB on line,
  - 2,5 PB on tape,
  - 100 TB flash system transfer node,
  - 3 server (per Virtualizzazione) 1TB ram, 2x32 core
  - 2 server (DB) 2x32 core) 256GB RAM 3.5 TB all flash
  - 3 server piccolo calcolo CPU 2TB ram (Git Runner & K8)
  - 1 server piccolo calcolo CPU 2 TB ram + L40 GPU
- IRA:
  - server con funzionalità storage,
  - tape library 400TB
  - dischi per supporto archivi radio
- Cagliari
  - server con funzionalità storage,
- Asiago/OAPd:
  - server di virtualizzazione
- OATo:
  - ODA

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IA2: Services

VOSpace v1.0

Small computation:

- GITLab Runner;
- K8 connected to storage space;

Tested and under deployment

Perspective:

- Science gateway (computation connected to archives and vice versa with the use of effective services like K8, Notebooks etc..);
- DOI Self generation in VOSpace;
- Bibliography into the Data Archives (telbib like)

- USC-C services (on IA2 infrastructure)
  - Hosted web pages
  - owncloud (130 utenti)
  - redmine (~350 Utenti)
  - gitlab (~250 Utenti / ~ 370 progetti)
  - indico (~ 1100 inaf; ~700 esterni)
  - DOI service https://doi.ict.inaf.it/
  - INAF Open Access
  - Hosted VMs
  - Licence server

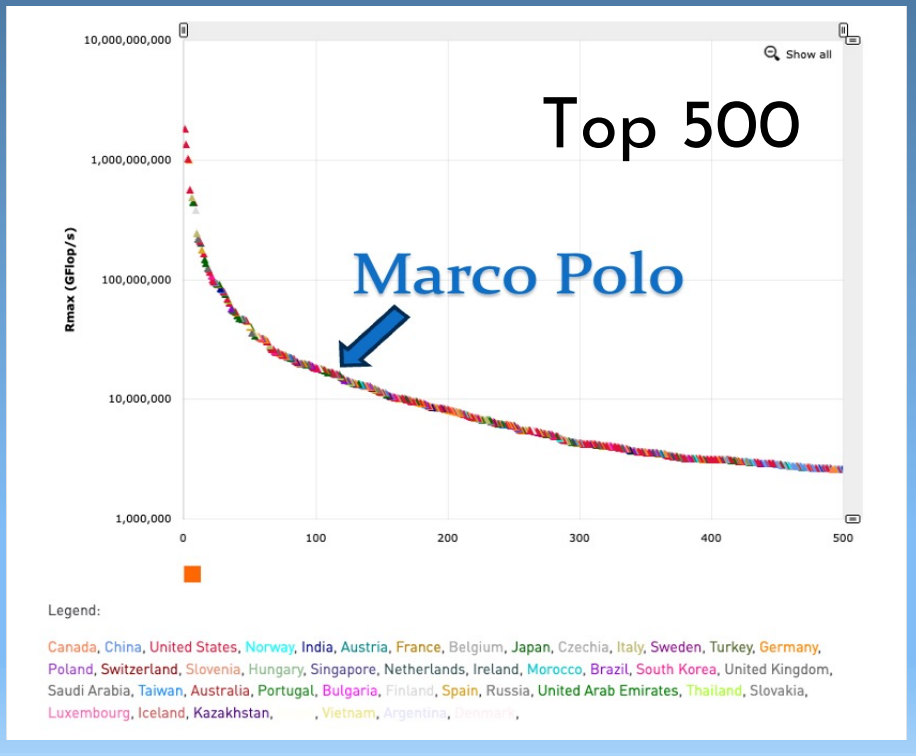
The incoming (2026+) INAF Resources

INAF resources summary:

- Computing power
  - 55 nodes of the Marco Polo CPU partition
  - 33% of the Marco Polo GPU partition
  - 100% of Tier3 resources
- Storage
  - 5 PB of on-line storage
  - ~17 PB of long-term storage
  - Access to 10 PB Scratch NVME Storage (Marco Polo scratch area)
- ≥200 Gb/s high-speed internal network interconnecting compute and storage systems
- 100 Gb/s external connectivity to the Internet

Timeline:

- Summer – October 2025: system commissioning
- November 2025: system acceptance
- December 2025 – February 2026: system software set-up
- March 2026: system in production (computing + on-line storage + scratch)
- End 2026: long-term storage avail



Marco Polo Tier 1 system

The Marco Polo system is composed by two partitions:

- **CPU Partition**
- **GPU Partition**

CPU Partition:

- LENOVO ThinkSystem SD665 V3
- 221 nodes AMD EPYC 9745 (Turin-Zen5c)
- Core per node: 128
- Frequency: 2.3 GHz
- Node Power: 400 W
- Node RAM Memory: 768 GB DDR5
- Network:
  - 2 × ConnectX-7 NDR200 dual-port × node (Infiniband for computing)
  - 2 × 100 Gb Ethernet per node (I/O)
- HPL ~ 3.9 PFlops

GPU Partition:

- LENOVO ThinkSystem SD650-N V3
- 90 nodes Intel Emerald Rapids 8592+
- Core per node: 64 × 2 sockets (128 tot)
- Frequency: 1.9 GHz
- Node RAM Memory: 512 GB DDR5
- 4 GPUs per node Nvidia H100 SXM5
  - Memory HBM3 per GPU: 80 GB
  - Interconnect: NVLink 4.0
- Network:
  - 4 × NDR200, each directly linked to GPU (Infiniband for computing)
  - 2 × 100 Gb Ethernet per node (I/O)
- Node Power: 3317 W (700 W per GPU)
- HPL ~ 15.24 PFlops

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INAF Tier 3 system

The INAF dedicated system is composed by:

- **21 FAT CPU nodes**
- **4 GPU accelerated nodes**
- **5 PBytes On-line fast storage**
- **~ 17 PBytes Long-term storage**

CPU Nodes:

- 21 AMD EPYC 9745 (Turin-Zen5c)
- Core per node: 128
- Frequency: 2.3 GHz
- Node Power: 400 W
- Node RAM Memory: 1.152 TB DDR5
- HPL ~ 0.1 PFlops

GPU Nodes:

- 4 Intel Emerald Rapids 8592+
- Core per node: 64 × 2 sockets (128 tot)
- Frequency: 1.9 GHz
- Node RAM Memory: 512 GB DDR5
- 4 GPUs per node Nvidia H100 SXM5
  - Memory HBM3 per GPU: 80 GB
  - Interconnect: NVLink 4.0
- Node Power: 3317 W (700 W per GPU)
- HPL ~ 1 PFlop

Storage:

- On-line storage
  - Huawei OceanStor Pacific
  - HDD 5 PB capacity
- Long-term data storage
  - Huawei OceanStor Arctic
  - ~ 17 PB capacity
  - Magneto-electric tape techonlogy

Multi-tired fully integrated system

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Main Aims of USC C-Computing

The main medium-long term objective of USC-C is **the creation of a computing ecosystem for INAF**, capable of supporting, for the next few decades, the current very high competitiveness of the members of INAF in the international arena

Implementing step 2:

Coordination and synergy of the work of the excellent skills in the field already present in the various INAF Structures **in the context of the new national (and international) initiatives** devoted to Computing and Big Data, with particular emphasis on **HPC, AI and Quantum Computing**

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NATIONAL INSTITUTE FOR ASTROPHYSICS

Thematic teams

The thematic teams (so-far)

Data Management Systems
Standards and interoperability
HPC and Computing
Predictive Maintainance
Scientific Visualization
AI (Machine Learning)
Quantum Computing

It is a bottom-up process for which we expect proposals also from you!

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Thematic teams

Aims:

- Knowledge spreading in INAF
  - (e.g. Sharing of technologies/software/solution of common problems)
- Dissemination and training Organization of workshops/schools/conferences
- Promote collaborations and synergies between different INAF offices/infrastructures
- Critical mass for the preparation of EU/national or INAF projects (e.g. Large/Tec/Data Analysis grants) and applications for use of INAF machines
- Joint publications, collaborative development of software or datasets
- Critical mass to promote INAF personnel recruitment policies (e.g. calls for AI-specialist, data analyst) or university positions (e.g. PhD positions)

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NATIONAL INSTITUTE FOR ASTROPHYSICS

The involvement in ICSC

Enti Affiliati e Aziende	
Università Roma Tor Vergata	Intesa SanPaolo
Università di Trieste	UnipolSai
Università di Torino	Sogei
Università di Catania	IFAB
Scuola Normale Superiore - Pisa	Leonardo
Sissa - Trieste	Thales Alenia Space Italia S.p.A. (TASI)

WP5
HPC Services and Access

WP Leader: D. Gasparrini (INFN)

WP1
HPC Codes Enabling and Optimization
WP Leader: G. Puglisi (Roma TOV)

WP2
Innovative Algorithms Methodologies and Codes
WP Leader: P. Monaco (UniTS)

WP3
Big Data Analysis, Machine Learning and Visualization
WP Leader: F. Vitello (INAF)

WP4
Big Data Management (Storage and Archiving)
WP Leader: C. Knapic (INAF)

Science

Industrial Projects

Finanziato dall'Unione europea NextGenerationEU

Ministero dell'Università e della Ricerca

Italiadomani PIANO NAZIONALE DI RIPRESA E RESILIENZA

ICSC Centro Nazionale di Ricerca in HPC, Big Data and Quantum Computing

ICSC - Spoke 3 – projects

Challenging Projects	Description
Radio Astronomy	Square Kilometer Array (SKA) and its precursors and pathfinders: the most ambitious scientific and technological challenges in the field of radio astronomy.
Space Missions	ESA's Euclid **and GAIA** missions will explore how the Universe and the Galaxy.
High-Energy	The FERMI space mission provides insights into gamma-ray bursts, black holes, and dark matter. FERMI's observations contribute to multi-messenger astronomy, linking gamma rays with gravitational waves and neutrinos.
Large Scale Simulations	Foster reuse and sharing of algorithms and software components in the A&C application domain, addressing this action through co-design activities that bring together scientists, code developers, HPC experts,.
Big Data Analysis and ML	HPC AI for data processing and analysis, Management and distribution of large dataset in the Datalake, High rate analysis.

Finanziato dall'Unione europea NextGenerationEU
Ministero dell'Università e della Ricerca
Italiadomani PIANO NAZIONALE DI RIPRESA E RESILIENZA
ICSC Centro Nazionale di Ricerca in HPC, Big Data and Quantum Computing

ICSC – Involvment of INAF in «innovation» industrial-linked projects

Challenging Projects	Field	Subject
Hazard Mapping and Vulnerability Monitoring	Climate, energy and **environment**	Visualization, HPC, AI, and large-scale data **analysis**
Space and ground-based observations	Computational **Physics and Space**	Large-scale data management and storage, and Data Lake
Fraud detection, credit risk, and churn analysis	Society, Quantum Computing, AI	Time series analysis using machine learning techniques and the use of HPC systems.
Preventing cyber attacks in real time.	Society and cyber security	Porting machine-learning algorithms to HPC and QC for cyberattack prediction

ICSC – INAF «cascade» projects

N.	Aree Tematiche e relazione con i WP dello Spoke	Numero di Progetti
1	Scientific Visualization with Artificial Intelligence Support. WP 3	10
2	Accelerated Algorithms WP 2	2
3	Parallelization and acceleration of scientific codes WP 2	4
4	Intelligenza Artificiale applicata alla features detection e classificazione WP 1 and 3	3
5	Intelligenza Artificiale applicata a missioni spaziali WP 1 3 and 4	7
6	Metodologie avanzate di analisi dati WP 1 2 and 3	10

22 + 14 projects funded by INAF, all strictly aligned with the Spoke's WP activities.

22 were submitted by private SME entities.

⇒ **SME**: **2.85 MEuro** (**57%** of the global funds)

⇒ **Investment in Southern Italy** : **2.01 MEuro** (**40%** of the global funds)

- Global funds 5,164,611 Euro

ICSC - INAF «people»

Recruitment of fixed-term staff - **INAF @ CN-HPC 2023-2025**

TI	Ric-Tec TD	AdR	CTER/TD	Borsisti	PhD
67	20	11	3	7	8

49 total positions

All fixed-term staff (TD), research fellows (AdR), technical staff (CTER/TD), and grant holders were **extended until the project's end date of 31/12/2025**

The project's financial commitment, including mission expenses, event organization, sponsorships, and dissemination activities, resulted at the end of 2025 in a cash surplus of approximately €1,500,000 (unrestricted funds).

INAF «people» for CN-HPC 2026

Action 1 ➔ INAF Residual CN-HPC 2022-2025 funds

Recruitment for 17 fixed-term staff TD (almost completed): coordinated program with 3 main objectives

Objective 1: High Performance Computing (HPC) for Numerical Astrophysics (6 positions)
Objective 2: Artificial Intelligence, Machine Learning and advanced techniques for the analysis of large volumes of scientific or territorial monitoring data. (9 positions)
Objective 3: Quantum Computing (2 positions)

ACTION n. 2 ➔ DD 307
New recruitment on April 2026

440 Keuro for 6/9 fixed-term staff TD

INAF: OACT, OAPA, IASF/PA, OACN, OACA, IRA

2027 onward? CN-2? Likely… but still to define

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Implementing step 3:

Reaching, supporting and training INAF personnel

The USC-C website

Sport - La Repubblica | usc8.inaf.it/

usc8.inaf.it 90% Cerca

a/Cinema | News | TRASPORTI | SRT+OAC | Missioni | webOAC | ePAS | OA@INAF | Gmail | Drive | Maps | Astrophysics | MyTIM | AstroPhysCalc | PICA

NEWS

Second General Assembly of the INAF Central Scientific Unit -Computing

In Meetings, News

From the 9th to the 13th of March 2026, at

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Call for Paper Workshop "Scientific HPC in the pre-Exascale era"

In News

2nd edition in Turin The workshop "Scientific HPC in the pre-Exascale era," 2nd edition, is now open forsubmission. It will be held during the 4th ITALIAN CONFERENCE ON BIG DATA AND DATASCIENCE (ITADATA2025) between September 9th and 11th, 2025. To participate in the workshop, each participant must send a title, abstract, and proceeding,either a short paper (5 to 9 pages) or a regular paper (at least 10 pages) in a preliminary stage. A scientific program committee will revise the proceeding, which can be modified untilthe camera-ready submission deadline. Proceedings should be published online toCEUR-WS.org, a free open-access platform for computer scienceworkshop proceedings. The paper template

READ MORE →

Corso Containerizzazione del software per il calcolo scientifico e le infrastrutture, Torino 12-14 maggio 2025

In Corsi, Formazione, News

Siamo lieti di annunciare che l'USC-C (precedentemente nota come USC VIII) organizza il secondo corso in presenza (con possibilità di seguire da remoto) sulla containerizzazione del software per il calcolo scientifico e le infrastrutture. Il corso introdurrà i fondamenti della containerizzazione del software, insieme a concetti più avanzati rilevanti sia per il calcolo scientifico che per i servizi IT. L'evento si terrà dal 12 al 14 maggio 2025 presso l'Osservatorio Astrofisicodi Torino. La pagina web è disponibile QUI Il corso è gratuito e limitato a 40 persone. Anche le pause caffè e il pranzo del 13 maggio sono offerti dall'organizzazione.La scadenza per le iscrizioni è

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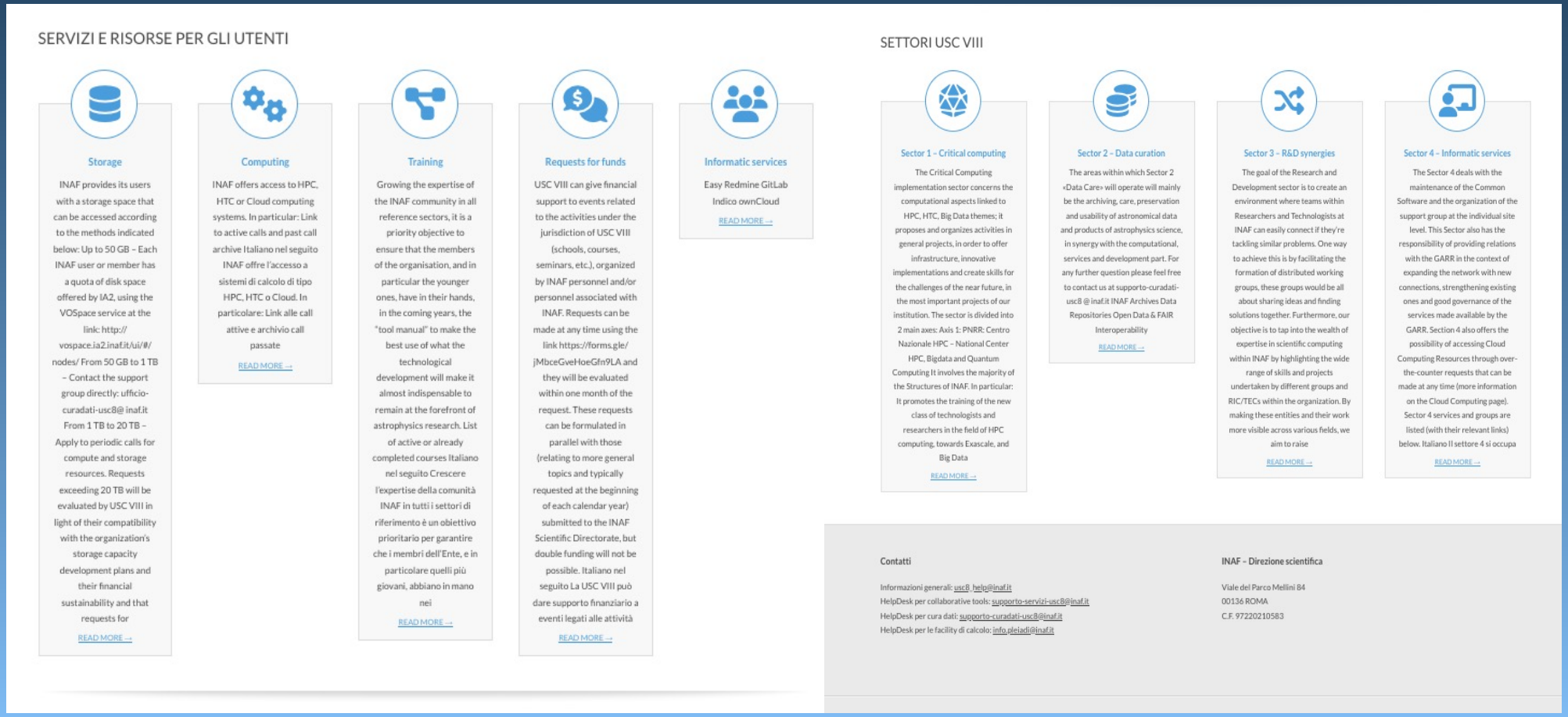
USC-C | INAF – Istituto Nazionale di Astrofisica – National Institute for Astrophysics

The USC-C website



The services/resources and the 4 USC-C sectors

USC-C training acitivities

Corso Computing and High Performance Computing in Astronomy and Astrophysics, Catania 22-26 Settembre 2025

INAF/USC-C è lieto di annunciare il corso "Computing and High Performance Computing inAstronomy and Astrophysics", che si terrà a Catania dal 22 al 26 Settembre 2025, pressol'Osservatorio Astrofisico di Catania, in Via Santa Sofia 78, 95123 Catania (CT). Il Calcolo ad Alte Prestazioni (High-Performance Computing, HPC) rappresenta un elementofondamentale dell'Astrofisica e della Cosmologia moderne, essenziale per la modellizzazione di sistemi dinamici, l'analisi delle osservazioni e la formulazione di previsioni teoriche. L'enormequantità di dati complessi raccolti dagli osservatori di ultima generazione richiede strumentiteorici e computazionali innovativi per investigare i fenomeni fisici con un dettaglio senzaprecedenti.Il corso è pensato per fornire ai giovani ricercatori in Astronomia e

Computing and High Performance Computing in A&A

24 June – 05 July 2024 Bologna – Area di ricerca CNR – Overview In Astrophysics and Cosmology (A&C) numerical algorithms based on High-Performance Computing (HPC) are essential for modelling complex dynamic systems, interpreting observations, and making theoretical predictions. Contrasting the results from numerical codes with the torrent of complex observational data that the new generations of ground- and space-based observatories will produce will be a fundamental channel to provide new insights into astronomical phenomena, the formation and evolution of the universe and the fundamental laws of physics. The outstanding quality and volume of observational data generated by the current and next generation of instruments

Container Fundamentals applied to scientific research

13 Dec 2023 – 14 Dec 2023 Cupola Fiore (OA Brera) OverviewModern scientific research challenges require new technologies, integrated tools, reusable and complex experiments in distributed computing infrastructures. But above all, computing power for efficient data processing and analyzing. Container technologies have emerged as a new paradigm to address such intensive scientific applications problems. Their easy deployment in a reasonable amount of time and the few required computational resources make them more suitable. Containers enable performance isolation and flexible deployment of complex, parallel, and high-performance systems. Moreover, they gained popularity to modernize and migrate scientific applications in computing infrastructure management. Additionally, they reduce computational time

Annuncio Scuola GIT

Corso di formazione intermedio su GIT, GITLab e la CI/CD in presenza (con possibilità di seguire anche da remoto) presso l'Area della Ricerca di Bologna – CNR il giorno 25 febbraio 2025. Il corso in presenza sarà a numero chiuso con un massimo di 40 partecipanti. Per informazioni, logistica e registrazioni -> https://indico.ict.inaf.it/e/gitlab

Fundamentals of Data Management Plan and Data Models applied to science

25-26 January 2024 – Trieste – Osservatorio Astronomico di Trieste – Il corso si prefigge come obiettivo di fornire ai ricercatori gli strumenti per comprendere e utilizzare i Data Management Plan e per strutturare le collezioni dei dati scientifici. Queste conoscenze, valide sia per dati osservativi che da simulazione, sono di supporto alle necessità di salvaguardia e distribuzione aperta e aderente ai principi FAIR, così come comunemente richiesto nei bandi di finanziamento istituzionali, nazionali ed europei. Inoltre, un'accurata preparazione dei dati è funzionale a una pubblicazione curata, comprensibile nel tempo, riutilizzabile e interoperabile, così come espresso dai paradigmi dell' Open Science, Open Data e dai principi FAIR

Corso Containerizzazione del software per il calcolo scientifico e le infrastrutture, Torino 12-14 maggio 2025

Siamo lieti di annunciare che l'USC-C (precedentemente nota come USC VIII) organizza il secondo corso in presenza (con possibilità di seguire da remoto) sulla containerizzazione del software per il calcolo scientifico e le infrastrutture. Il corso introdurrà i fondamenti della containerizzazione del software, insieme a concetti più avanzati rilevanti sia per il calcolo scientifico che per i servizi IT. L'evento si terrà dal 12 al 14 maggio 2025 presso l'Osservatorio Astrofisicodi Torino. La pagina web è disponibile QUI Il corso è gratuito e limitato a 40 persone. Anche le pause caffè e il pranzo del 13 maggio sono offerti dall'organizzazione.La scadenza per le iscrizioni è

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INAF – Istituto Nazionale di Astrofisica – National Institute for Astrophysics

Courses for students, and structured personnel on individual specific topics: eg. porting of codes to HPC, methodologies for Machine Learning, exploitation of GPUs, use of containerization, continuous integration etc...

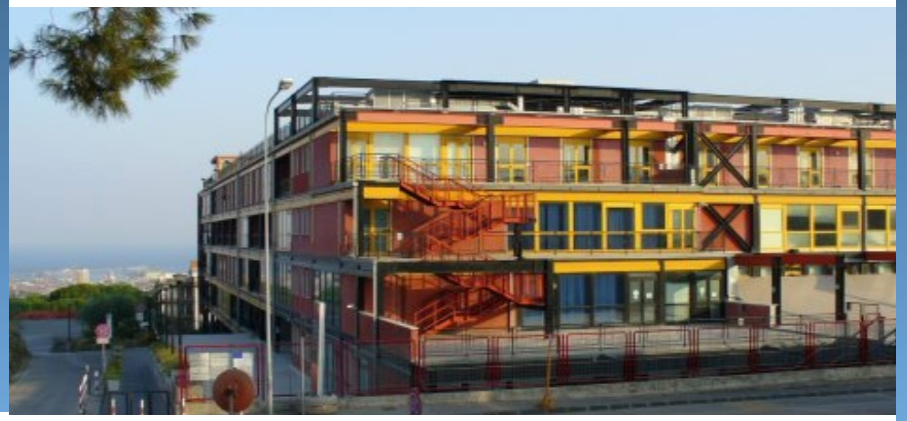
USC-C workshops

Workshop Archivi

E' uscito l'annuncio per il workshop "Archives and Data Management Systems", che si svolgerà dal 26 al 28 febbraio prossimi presso l'Area della Ricerca di Bologna. Esso è il terzo di una serie dedicata alla gestione e cura dei dati nell'epoca dei Big Data.Modalità di partecipazione: ibrida Location: Bologna – CNRDate: 26-28/02/2025Website: https://indico.ict.inaf.it/e/archives_dms ********** English version below ********** Dear colleagues,The announcement of the "Archives and Data Management Systems" workshop, which will take place from 26th to 28th of February at the Research Area of Bologna, is now shared. This meeting is the third in a series dedicated to data management and curation in the era

ML4Astro

8-12 July 2024 – Catania – The 2nd edition of the International Conference on Machine Learning for Astrophysics (ML4ASTRO2) aims to unite leading researchers actively engaged in applying machine learning to astrophysical studies. Following the success of the first edition, this international conference is dedicated to exploring the challenges and opportunities presented by the impending Big Data era in astronomy. Focusing on the integration of ML/DL techniques with astrophysics, the event will showcase cutting-edge AI methodologies tailored for addressing key open problems in this field. Engaging discussions will revolve around the innovative application of AI models to observational and simulation data. We welcome submissions of abstracts for Oral Presentations or



Workshop sul calcolo critico a Catania

Il primo evento organizzato dalla USC VIII, un "Workshop di due giorni dedicato al Calcolo Critico" si è svolto con successo il 15-16 Giugno a Catania, utilizzando gli spazi messi a disposizione dal locale Dip di Fisica. Oltre 70 persone hanno presenziato al meeting, che è stato caratterizzato da un elevato grado di interazione fra i presenti e da discussioni utilmente vivaci. I contributi possono essere scaricati al link https://indico.ict.inaf.it/event/2366/contributions/

USC-C events

USC-C General Assemblies:

USCVIII General Assembly

This is the first general meeting of the recently instituted INAF Central Scientific Unit VIII-Computing (USC VIII-Computing). More details at https://indico.ict.inaf.it/event/2870/

Second General Assembly of the INAF Central Scientific Unit -Computing

From the 9th to the 13th of March 2026, at the SAVOIA Excelsior Palace in the seashore of Trieste city center. Session and trainings on Information Technology! More info @ https://indico.ict.inaf.it/event/3368/

Support for events

In addition to the events directly organized by USC VIII, an online form will be available from June 1, 2023

https://forms.gle/jMbceGveHoeGfn9LA

to request support (economic or practical) at USC VIII in organizing events that have to do with USC activities.

Thank you all !!