

## SPACE CoE NEWSLETTER

### SPACE CoE First Review in Luxembourg - 21.02.2024



First review meeting in Luxembourg for SPACE Centre of Excellence at the EuroHPC Joint Undertaking (EuroHPC JU). It's exciting to showcase the improvements and the achievements of the cutting-edge activities performed by the CoE during its first lifespan to pave the way to exascale applications in astrophysics and cosmology. We are proud to contribute to scientific and technological advancements at the forefront of innovation for hpc.

[Find out more](#)



### EuroHPC Summit Week 18-21 March 2024

SPACE CoE was present with a poster at the EuroHPC Summit 2024 held in Antwerp, Belgium, during the Belgian EU Presidency under the title "To exascale and beyond Unleashing the Power of European HPC and Quantum Computing".



[Find out more](#)

### Upcoming Training opportunities and events



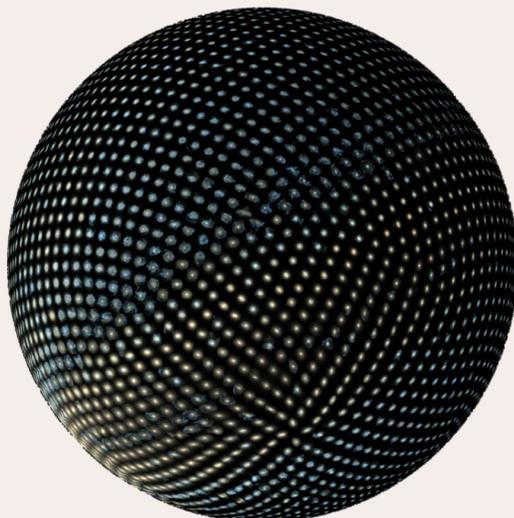
**Introduction to git**  
22.4.2024 (10.00-11.00 CEST) - Online

Short introductory course on git for European HPC projects.

Agenda:

- Introduction to git version control system. Presentation with slides (intro\_git.pdf) (~30 minutes):
  - how to clone or create a git repository;
  - how to check and visualize the status and the branches of the repository;
  - how to manage the repository: git pull, git push, git fetch, git merge, git rebase, git add, git commit, git checkout, git reset.
- showcase in real-time with a few examples of the git usage (~30 minutes):
  - create a repository from scratch or clone a pre-existing remote repository;
  - add files, commit them, and push them on the remote repository;
  - create multiple branches and merge them properly.

[Find out more and join](#)



### Maching learning prototype for SPACE applications

07.5.2024 (15.00-15.45 CEST) - Online

The objective of this webinar is to present the prototype of a machine learning tool to enable the exploration, analysis, and interpretation of the outputs of large-volume cosmological simulations using Representation Learning techniques. The tool efficiently learns a low-dimensional representation of the structure of simulated galaxies in arbitrary physical components, uncovering their intrinsic structural distribution. It also provides an interactive hierarchical visualization of the entire simulation and its compact representation, and scales to arbitrarily large simulations beyond the Exascale era.

[Join the webinar](#)



April 24, 2024 – April 26, 2024  
9:00 AM-5:00 PM

Simons Foundation, located at 160 Fifth Avenue, 3rd Floor, New York, Ny, 10010, and Zoom

RAMSES is an open source code written by Romain Teyssier to model astrophysical systems, featuring self-gravitating, magnetised, compressible, radiative fluid flow.

Participation is free of charge.



**MACHINE LEARNING FOR ASTROPHYSICS**  
2<sup>ND</sup> EDITION CATANIA, 8-12 JULY, 2024

In the Big Astronomical Data era, the conference aims to address the challenges emerging from the application of ML/DL methods to open problems in astrophysics, bringing together researchers actively involved in these fields.

Novel AI techniques will be presented, and collaborative discussions on their use with observational and simulated data will be fostered.

Mark your calendar and join us for an enriching experience at ML4ASTRO2.

For any inquiries or additional information, please do not hesitate to contact our organizing committee at [ml4astro2@inaf.it](mailto:ml4astro2@inaf.it)

[Visit for updates](#)

## PLUTO Symposium 2024 - Torino (Italy) 23-25 September

The PLUTO symposium 2024 aims at bringing together developers, scientists and users with the purpose of sharing recent numerical algorithms, new code features as well as challenging astrophysical applications. A special focus will be given to the GPU porting of the code and its forthcoming release. A hands-on session will also take place in order to help the new users to get used to the code structure.

While we strongly encourage in-person participation, we will also ensure remote participation through the Webex application.

**Registration** is mandatory and can be done using the [Google form](#).

[Find out more](#)

## Stay tuned with the next European initiatives



### ISC High Performance 2024 - Hamburg (Germany) 12-16 May 2024

The ISC 2024 event includes both a conference program and an exhibition. The [conference program](#) is divided into Invited, Contributed, and Vendor Programs. The chair of the ISC 2024 Program is Michela Taufer from The University of Tennessee in the USA, and the deputy chair is Torsten Hoefer from ETH Zurich in Switzerland. Their role is crucial in ensuring that the event's theme, "Reinventing HPC into ISC 2024," is woven throughout the conference program.

Whether attending the conference program or visiting the exhibition, the focus is on effectively using HPC in science, engineering, and business.



### ASHPC24 – Austrian-Slovenian HPC Meeting - Grundlsee (Austria) , 10-13 June 2024

ASHPC24 will continue the tradition of the annual Austrian HPC Meetings, bringing together scientists and technicians with a background and interest in supercomputing. HPC operates at the limits of computationally feasible problems and helps to conquer new territory of science. Learning about current limitations and exchanging ideas on addressing these issues is vital for the further development in scientific and technological competitiveness. ASHPC24 will be an excellent opportunity to present and learn about the latest research results and exchange ideas between the users and providers of HPC resources.

[Find out more](#)

If you want to contact us please write at [info@space-coe.eu](mailto:info@space-coe.eu)



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#### Disclaimer

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