SPACE CoE NEWSLETTER

Scalable Parallel Astrophysical Codes for Exascale

In this exclusive interview, Andrea Mignone, Coordinator of the SPACE Centre of Excellence, shares insights and goals that SPACE is addressing in engineering astrophysical and cosmological applications in the exascale era.

Mignone delves into the challenges and innovations in adapting astrophysical codes for exascale computing, highlighting the collaborative efforts within the SPACE initiative to enhance software simulation, data analysis and visualization capabilities.

Watch now

Last events

HPC Visualization Workshop, Barcelona (Spain), 14-15 May 2025

SPACE Centre of Excellence hosted the High-Performance Computing (HPC) Visualization Workshop in a hybrid format at the Barcelona Supercomputing Center. The event brought together experts in astrophysics, cosmology, and HPC to explore cutting-edge visualization techniques for managing the massive datasets produced by simulations and observational campaigns.

Key topics included distributed and in-situ visualization, parallel cinematic rendering, and visualization tools for ML-assisted analysis.

More on this topic

SPACE General Assembly, Barcelona (Spain), 13 May 2025

The General Assembly of the SPACE Centre of Excellence convened in Barcelona to share progress updates and align on current and upcoming activities.

Members discussed strategic priorities and coordination efforts in preparation for the upcoming review in Luxembourg, scheduled for September.
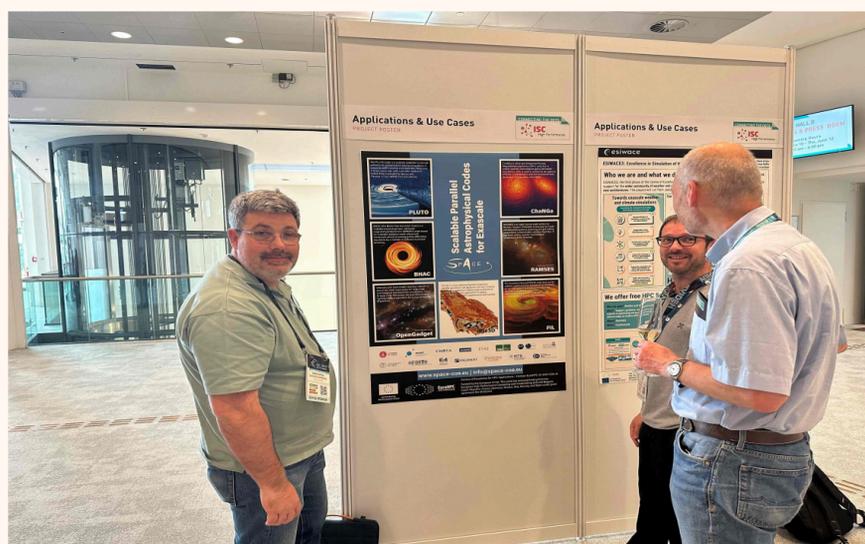
Thanks to Barcelona Supercomputing Center for hosting the meeting and for giving us the opportunity to visit MareNostrum 5, one of Europe's most powerful supercomputers.

Find out more

SPACE @ ISC High Performance 2025
Hamburg, 10-13 June 2025

Snapshots from Hamburg

Find out more

22nd ACM International Conference on Computing Frontiers (CF' 25)
May 28-30, 2025 |Cagliari, Sardinia, Italy

Computing Frontiers (CF) is an eclectic, interdisciplinary, collaborative community of researchers investigating emerging technologies in the broad field of computing: the common goal is to drive the scientific breakthroughs that support society.

In this year edition, SPACE CoE was one of the collaborative projects presented during the special session dedicated to collaborative partnerships, presenting both the interesting achievements in the lighthouse codes redesign and the very promising results in energy efficiency in HPC systems.

Thanks to Nitin Shukla, CINECA, for presenting SPACE in this very special occasion.

S P A C E

The PASC25 Conference
June 16-18, 2025| Brugg, Switzerland

The PASC Conference series is an international and interdisciplinary platform for the exchange of knowledge in scientific computing and computational science with a strong focus on methods, tools, algorithms, workflows, application challenges, and novel techniques in the context of scientific usage of high-performance computing.

The conference was initiated in 2014 by the Platform for Advanced Scientific Computing (PASC) structuring project, which positions Swiss computational sciences in the emerging exascale era. PASC aims at promoting a joint effort to address key scientific issues in various domain sciences through interdisciplinary collaborations between computational scientists, software developers, computing centres and hardware developers within Switzerland.

Europan Astronomical Society – Annual Meeting
June 23-27, 2025| Cork, Ireland

The EAS annual meeting is an event where researchers are encouraged to have a free discussion, and a free exchange of ideas and scientific results. All professional interactions should be conducted with consideration and respect. This includes, but is not restricted to, interactions with other attendees, exhibitors, administrative, technical or other support staff. The SPACE project will be presented with a specific focus on machine learning use cases.

Stay tuned

If you want to contact us please write at info@space-coe.eu

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