

Connecting, Collaborating, Innovating: MultiXscale CoE at ISC Hamburg 2026

CONNECTING THE DOTS



JUNE 22-26, 2026 | HAMBURG, GERMANY

MultiXscale CoE experts played an active role in the ISC High Performance 2026 programme by organizing a tutorial on 22 June titled “Introduction to EESSI: the European Environment for Scientific Software Installations”. The session introduced participants to EESSI (pronounced "easy"), a collaborative initiative involving European HPC centres and industry partners that aims to provide a shared repository of scientific software installations across diverse computing environments. Attendees learned how EESSI simplifies software deployment on different Linux distributions, processor architectures, HPC systems, cloud virtual machines, and personal workstations.



On 25 June, the MultiXscale team also organized the Birds of a Feather providing an interactive forum for users, developers, and stakeholders, presenting the latest developments in the project, demonstrated the EESSI user experience, and outlined future plans for the initiative.



[Read More](#)

More news in this issue:



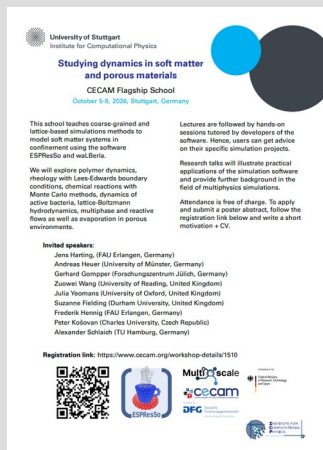
MultiXscale in the NCC/CoE
Success Stories Booklet 2025



Women Driving Innovation
on 8 March



MultiXscale at HiPEAC
Kraków 2026



ESPResSo Summer School, October 5-9, 2026, in Stuttgart (Germany)

MultiXscale and the ICP Stuttgart invite you to the 2026 ESPResSo summer school “Studying dynamics in soft matter and porous materials”, taking place on October 5-9, 2026 in Stuttgart, Germany. Attendance is free of charge. The call for poster abstracts is open until September 25, 2026. More information available [here](#).



EuroHPC User Days, Dublin (Ireland) 22-24 September 2026

MultiXscale CoE will be actively contributing to EuroHPC User Days 2026 with an interactive session, a hands-on showcase of EESSI, and present a poster. In addition, members of the scientific team will present their papers (three in total).

[Read More](#)



CFD parschool – July 12- 17, 2026 – Gran Sasso Science Institute – L'Aquila (Italy)

MultiXscale experts Matteo Zangfronini and Antonio Sciarappa (Leonardo) will give “An introduction to the lattice Boltzmann method for industrial applications”. More information about the event available [here](#).



New release: ESPResSo 5.0.1

ESPResSo 5.0.1 is a bugfix release for the 5.0 line, providing corrections that improve reliability and accuracy. While the user interface remains unchanged from version 5.0.0, several issues affecting simulation results have been resolved. More info [here](#).

JLESC 18th Workshop: Electrostatics at scale, at Jülich Supercomputing Centre 2026-06-24

At the Joint Laboratory for Extreme-Scale Computing (JLESC) workshop, our partners at Forschungszentrum Jülich presented the latest developments in the performance-portable electrostatics library at JLESC 18th Workshop, from 19 to 21 May 2026.

[Read More](#)

New Paper available at Nature Communications 2026-06-23

New Paper available at Nature Communications, volume 17, Article number: 5464 (2026): “Highly disordered nanoporous carbons for enhanced energy storage in supercapacitors”. DOI: 10.1038/s41467-026-71520-x. This study provides clear design principles for creating high-performance nanoporous carbons for supercapacitors.

[Read More](#)

Recordings available online: 3-day EasyBuild + EESSI + Spack tutorial/hackathon 2026-06-18

The event was organized in Bologna (Italy) on 19 May 2026 by CINECA in collaboration with MultiXscale and MaX CoE. Watch the videos [here](#).

ISC Hamburg (Germany), June 22-26 2026 2026-06-12

Tutorial and Birds of Feather session organized by MultiXscale experts about the European Environment for Scientific Software Installations (EESSI). More information available [here](#).

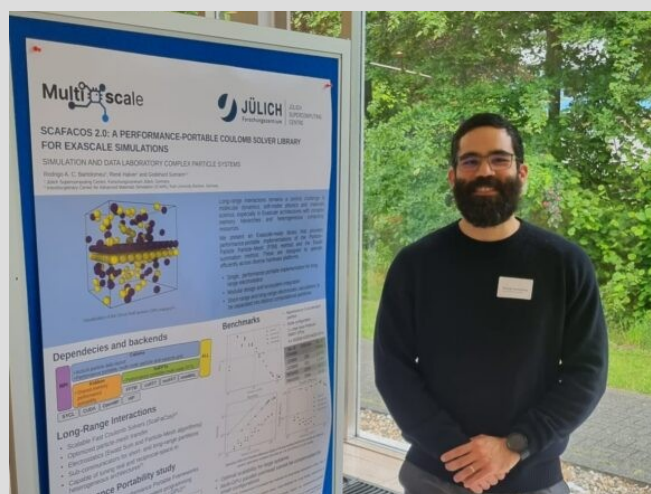
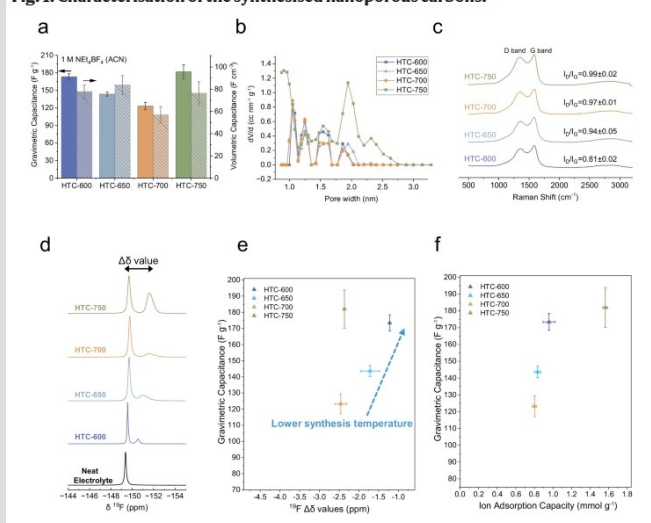


Fig. 1: Characterisation of the synthesised nanoporous carbons.



RECORDING AVAILABLE!

CINECA

3-day EasyBuild + EESSI + Spack tutorial/hackathon

Organized by: CINECA, in collaboration with MultiXscale and MaX Centres of Excellence

Note: Materials design at the above has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 101019113 and Participating Countries in Project (Greece, France, Germany, Italy, Slovenia and Spain).





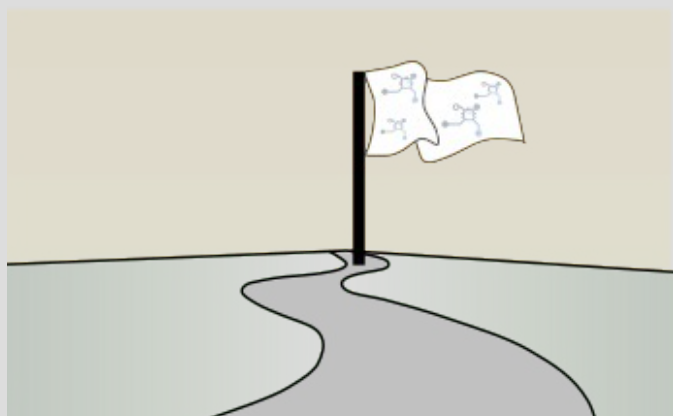
HPC Annual Meeting – HPCKP26 Barcelona 17-18 June 2026 2026-06-09

Alan O’Cais presented “Introduction to the EuroHPC Federation Platform” on 17 June, during the HPCKP26 in Barcelona. More information available [here](#).



New Paper available at F1000Research: Establishing central Research Software Engineering units in German research institutions 2026-05-15

A new position paper calls for central Research Software Engineering (RSE) units in research institutions to bridge that gap, applying the same pooling logic in HPC and RDM units. Read the paper through [this link](#).



Another milestone for MultiXscale 2026-05-13

The EESSI RISC-V software stack available through the [dev.eessi.io/riscv](#) repository now includes the lfoss/2025b toolchain. Read the full article by Julián Morillo (BSC) [here](#).

[Read More](#)



deRSE Conference Stuttgart, 3 – 5 March 2026 2026-04-14

The Conference for Research Software Engineering in Germany is a yearly event to foster synergies between scientist who code, domain experts, and HPC practitioners. The 6th iteration (deRSE26) was located at the University of Stuttgart and co-organized by a member of the MultiXscale consortium. The event attracted 280 participants and featured 90 posters and 100 talks, workshops, and interactive sessions organised in 5 parallel sessions. Further details [here](#).



EESSI webinar series (April-May 2026)

2026-04-10

In this webinar series we provided a comprehensive overview of EESSI: why we started it, how it works, how you can use it, ... Recordings, slides, and materials used in each session are available via [this page](#).



Food for Thought Festival on 16 March 2026 at the University of Ljubljana (Slovenia)

2026-04-07

MultiXscale CoE coordinator, Dr. Matej Praprotnik joined the roundtable discussion organized in the framework of the Food for Thought Festival. The recording is already available on YouTube through [this link](#).



New Podcast Episode: EESSI – Simplifying software installation in HPC systems

2026-04-01

This time is joined by MultiXscale experts Caspar van Leeuwen, Machine Learning Consultant at SURF, and Helena Vela, Computational Scientist at HPCNow! and Do IT Now Spain. Listen to the full interview [here](#).



MultiXscale experts Khush Bakhat Rana, Petra Papež, and Helena Vela were highlighted in the special issue “HPC Unites: Celebrating Women’s History Month at SC26”

2026-04-06

The theme selected for this year “HPC Unites” reflects the collaborative nature of the field, bringing together people, disciplines, and institutions to solve complex challenges and drive innovation.

Discover more about their profiles [here](#).

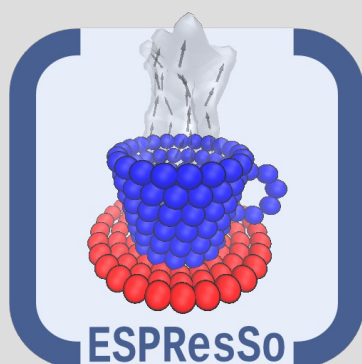


Status Update on EESSI for the EuroHPC Federation Platform

2026-03-20

Since the blog post in Feb'25 announcing that EESSI will be integrated in the EuroHPC Federation Platform (EFP), we have been working hard on making this a reality.

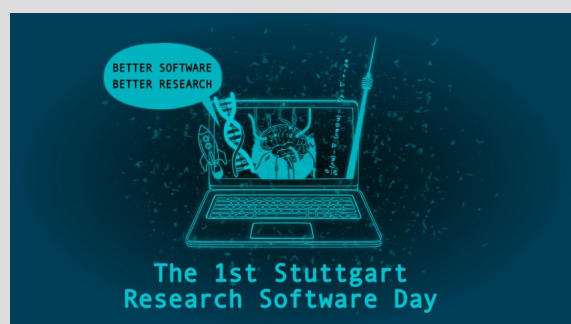
The Federated Software Catalog component of EFP will use EESSI as a base. As a result, EESSI will soon be available on all EuroHPC supercomputers. Read more [here](#).



ESPResSo 5.0 released!

2026-03-10

ESPResSo is an open-source simulation software for particle- and lattice-based modelling, used across soft matter, statistical physics, biophysics, and process engineering – from polyelectrolytes, gels and colloids to bacterial motion and super-capacitors. Further details available [here](#).



Highlights of the first Stuttgart Research Software Day

2026-03-09

It was organised as a satellite event of deRSE26 and explored Stuttgart's contribution to open source research software through 56 posters. More information available [here](#).



Explore ESPResSo pre-releases via dev.eessi.io

2026-02-24

ESPResSo pre-releases are available as binaries on the development stack of EESSI. Find more information [here](#).



EuroHPC
Joint Undertaking

Federation Platform

EFP Training and Webinars

Webinar on 25 February: EESSI integration in the EuroHPC Federation Platform (EFP)

2026-02-20

Get further information through the following [link](#).

Voices of MultiXscale: Women Driving Innovation on 8 March

2026-03-06

In the framework of the International Women's Day – 8 March, we highlighted the talented women involved in our MultiXscale CoE through a series of short interviews, where they shared their journeys, perspectives, and the inspiration behind their work:



CÉLINE MERLET
RESEARCHER
CNRS - UNIVERSITÉ DE TOULOUSE (FRANCE)



What inspired you to become a scientist?
I always liked sciences at school. For some time, I wanted to be a vet but realised during my studies that I was getting more and more interested in chemistry and computer science. While I was studying chemistry in Paris, I had the opportunity to do an internship in a laboratory, at Sorbonne Université, where I discovered molecular simulations. I understood directly that it was perfect for me as it consists in conducting numerical experiments, in this case at the border between chemistry and computer science, to explore what happens at the atomic scale in systems of interest.

What challenges did you face along the way?
I think the main challenge for me was the difficulty to settle somewhere. Everyone is different but for me the stability of having a permanent job was important and the number of positions in public research is limited. This being said I was always supervised and always collaborating with positive and helpful people so I always felt supported along the way, making this challenge easier to cope with.

What is one practical example of how your research is used in the real world?
My main topic of research is electrochemical energy storage systems, like supercapacitors and batteries, and materials associated. Supercapacitors are already used in applications such as start-stop systems and hybrid buses (using fuel and supercapacitors). One of the main materials used is porous carbon, often processed from coconut shells. Different synthesis methods and precursors (coconut shells, sherry pits, olive pits, etc.) give rise to different performance. I try to understand why some carbon materials are better than others for supercapacitors.



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#WomenAtMultiXscaleCoE



HELENA VELA
COMPUTATIONAL SCIENTIST
HPCNOW! - DO IT NOW (SPAIN)



What inspired you to enter the world of supercomputing?
I discovered supercomputing while studying Computer Engineering at the Polytechnical University of Catalonia. Participating in the Student Cluster Competition was a turning point for me, it exposed me to the real challenges of optimizing workloads and managing complex systems. That experience sparked my interest, and later working in HPC user support reinforced it, as I realized how impactful HPC can be when helping researchers achieve their goals.

What do you like the most about supercomputers?
What I like most is the orchestration behind them. A supercomputing cluster is not just powerful hardware, it's the careful coordination of thousands of tiny details: scheduling, networking, storage, compilers, libraries, monitoring, and user workflows, all working together seamlessly. I find it fascinating how all these layers must align perfectly to deliver performance at scale.

What is the most surprising thing you have learned while working in supercomputing?
The most surprising thing has been realizing that supercomputing is as much about people as it is about technology. My work showed me how collaboration, mentorship, and support can amplify impact. The systems are complex, but what truly makes them powerful is the community behind them.



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#WomenAtMultiXscaleCoE



KHUSH BAKHAT RANA
RESEARCHER
NATIONAL INSTITUTE OF CHEMISTRY (SLOVENIA)



What inspired you to become a scientist?
As a girl who earned excellent grades in school, medicine was the expected choice for me. My parents saw it as secure and respectable. But I always enjoyed solving mathematical and physical problems far more than memorizing biology. Choosing Mechanical Engineering was not the typical path, but it suited the way I think. During my Master's specialization in ThermoFluids, my interest became more defined. I was particularly drawn to how heat transfer and fluid flow could be predicted, and modeled with precision through physical laws and numerical methods. This experience made me realize that I did not just want to apply existing knowledge, but also contribute to it. Choosing a career as a scientist felt like the right direction for me.

How would you explain your recent scientific/research achievements in simple words?
I develop computer models to understand complex fluid behaviour in various applications. During my PhD, I built a numerical tool to solve supersonic gas-liquid flows which was then used to study the behaviour of high speed liquid microjets, employed as a sample delivery method in crystallography experiments. I also developed computational fluid dynamics (CFD) models to predict and improve the efficiency of wastewater treatment reactors. Currently, I am working on multiscale coupling between particle dynamics and fluid dynamics, linking molecular-level behavior with larger-scale flow systems. Overall, my skills lie in computational fluid dynamics, numerical modeling, scientific programming, and high-performance computing.

What is the most surprising thing you have learned while working in science
One of the most surprising things I have learned is how much science is driven by uncertainty. From the outside, research appears precise and structured, but in reality, many results fail, computations do not behave as expected, and progress is rarely immediate. I have learned that persistence matters more than perfection because scientific progress is gradual. Working in computational modeling has also taught me intellectual humility; small assumptions can significantly affect outcomes, and tiny instabilities can lead to large vortices. Science constantly reminds me that there is always more to understand, which I find both amazing and motivating.



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#WomenAtMultiXscaleCoE



SUSANA HERNÁNDEZ
COMM. & MARKETING
HPCNOW! - DO IT NOW (SPAIN)



What triggered your interest to work on communication and dissemination within supercomputing environment / ecosystem?
I was inspired by the groundbreaking research and technological advancements happening within the HPC community. For me, communication in supercomputing isn't just about promotion, it's about democratizing access to knowledge and showing society why this infrastructure matters.

What are the key challenges that you are facing?
One of the biggest challenges is complexity. Supercomputing operates at a highly technical level. Translating this into content that resonates with policymakers, industry leaders, researchers, and the general public, each with different levels of expertise, requires constant adaptation.

How do your experience help you navigate these challenges?
Working closely with engineers, researchers, institutional stakeholders and colleagues from other CoEs and NCCs has helped me understand both the essence of the work and its wider context. By focusing on impact driven storytelling, I can transform complex computational achievements into human centered stories. I also rely heavily on strategic framing, visual communication, and multi platform dissemination to ensure that the message reaches the right audience in the right format.



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#WomenAtMultiXscaleCoE



LARA PEETERS
SCIENTIFIC SOFTWARE SUPPORT
GHENT UNIVERSITY (BELGIUM)



What was the trigger that motivated you to enter the world of supercomputing?
I was introduced to the HPC world through my role in MultiXscale, which is focused on installing, deploying and testing scientific software. As an art-historian who was ignorant to the world of supercomputing a whole new range of possibilities opened up. I went from analyzing small datasets on my laptop that took hours to run to running datasets that are easily 50 times bigger in a fraction of the time.

What everyday problem do supercomputers help solve that might surprise people?
Any weather or climate predictions take a lot of computational calculations which are ideally done on a supercomputer.

How do you envision future filled with AI?
I don't know, if we have to look to the future I think the world is already filled with AI. In 2018, I wrote my bachelor paper on the use of AI tools in the field of Art History. And to a large extent the same tools and technologies (primarily in computer vision) are still being perfected and investigated, even though 2018 is eons ago in the current AI space and long before the breakthroughs with GPT. In general, I hope that new tools and technologies will keep popping up while the already existing ones will keep being perfected and hopefully not get drowned by garbage data produced by their technological cousins.



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#WomenAtMultiXscaleCoE



MultiXscale in the NCC/CoE Success Stories Booklet 2025

2026-02-19

MultiXscale Success Story “Automating the deployment of large software stacks for analysing huge radio astronomy data streams” is available in the NCC/CoE Success Stories Booklet 2025 (pages 164-165) [here](#).



The “Organizing software community workshops: Experiences from three independent simulation software projects” article has been published in the Electronic Communications of the EASST

2026-02-10

[Read More](#)



FOSDEM 2026 recordings are already available online!

2026-02-05

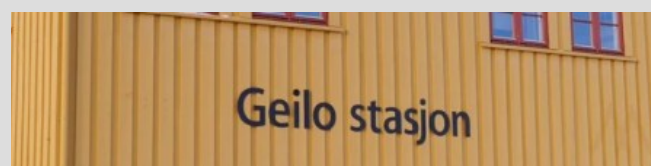
The talks by Kenneth Hoste and Helena Vela given on 1 February, during FOSDEM event, are already available online. You can get further details on EESSI blog post [here](#).



MultiXscale at HiPEAC Kraków 2026

2026-01-29

Our MultiXscale expert Helena Vela gave a presentation in the framework of the workshop “Rethinking scientific applications for exascale and emerging architectures: the Centre of Excellence challenge”. Further details available [here](#).



Geilo Winter School in Norway, 18-23 January 2026

2026-01-15

MultiXscale expert Thomas Röblitz (University of Bergen) explained how EESSI allows you to go “from zero to science in minutes” on virtually any Linux system in the world. More information [here](#).

NEWSLETTER

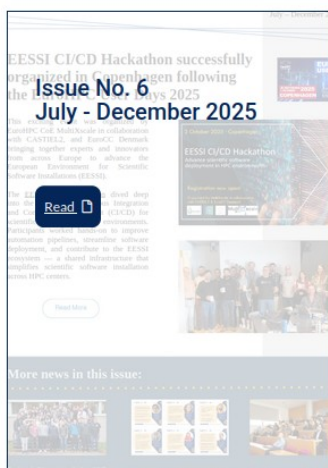
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