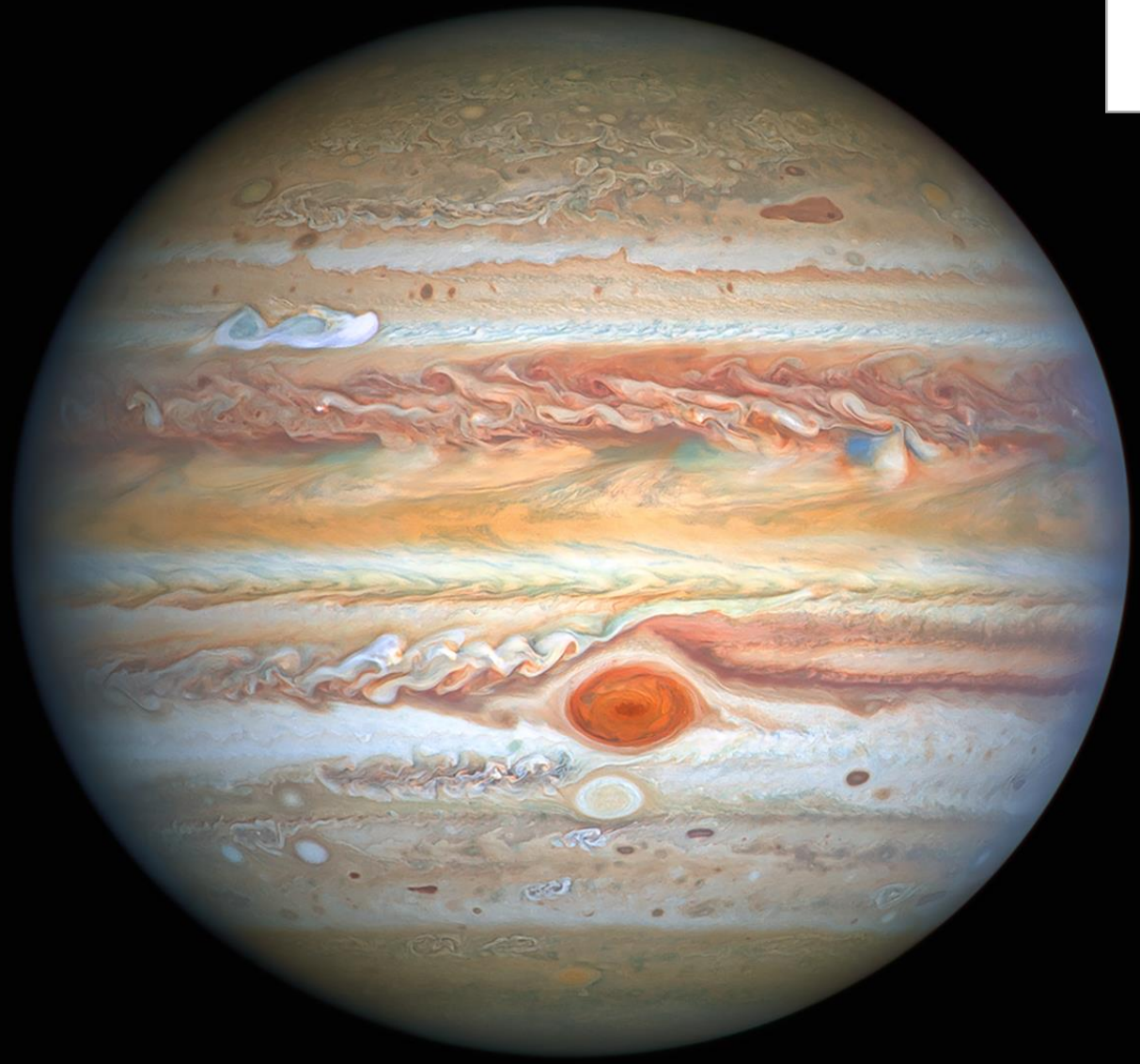
https://pop-coe.eu/news/events/readiness-of-hpc-extreme-scale-applications-2nd-edition

CONNECTING THE DOTS

ISC High Performance

JUNE 10 – 13, 2025 | HAMBURG, GERMANY



Hamburg, 13 June 2025

2nd International Workshop on

Readiness of HPC Extreme-scaling Applications

EuroHPC Joint Undertaking

CONNECTING THE DOTS
ISC High Performance
JUNE 10 – 13, 2025 | HAMBURG, GERMANY

2nd International Workshop on Readiness of HPC Extreme-scaling Applications

Marta García-Gasulla (Barcelona Supercomputing Center)
Brian J. N. Wylie (Jülich Supercomputing Centre)

HORIZON-EUROHPC-JU-2023-COE

EuroHPC Joint Undertaking

1 January 2024 – 31 December 2026

Grant Agreement No 101143931

History

- 1st workshop edition held at ISC24 in Hamburg, 16 May 2024
  - https://pop-coe.eu/news/events/readiness-of-hpc-extreme-scale-applications

- Follow-on from earlier PASC minisymposia
  - [virtual], July 2021
    - Performance Optimisation and Productivity for EU HPC Centres of Excellence (and all other European parallel application developers preparing for exascale)
  - Davos/CH, June 2023
    - Are HPC Codes Ready for Exascale? A EU HPC Centre of Excellence Point of View

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1st edition of workshop (ISC24)

https://www.pop-coe.eu/news/events/readiness-of-hpc-extreme-scale-applications

Hamburg, 16 May 2024

- Introduction including Mladen Skelin (EuroHPC JU)
- 4 short presentations on CoEs/applications
  - Niclas Janssen (KTH/CEEC), Szilárd Páll (KTH/BioExcel), Lara Peeters (UGhent/MultiXscale), Simon Burbidge (DiRAC)
- Keynote "Lessons Learnt from ECP" by Lois Curfman McInnes (ANL)
- Panel moderated by Guy Lonsdale (scapos/CASTIEL2)
  - Lois Curfman McInnes (ANL), Linda Gesenhues (EuroHPC JU), Niclas Janssen (KTH), Erwan Raffin (Eviden), Nicola Spallazani (CNR), Harald Köstler (FAU)

ISC
High Performance
International Workshop on
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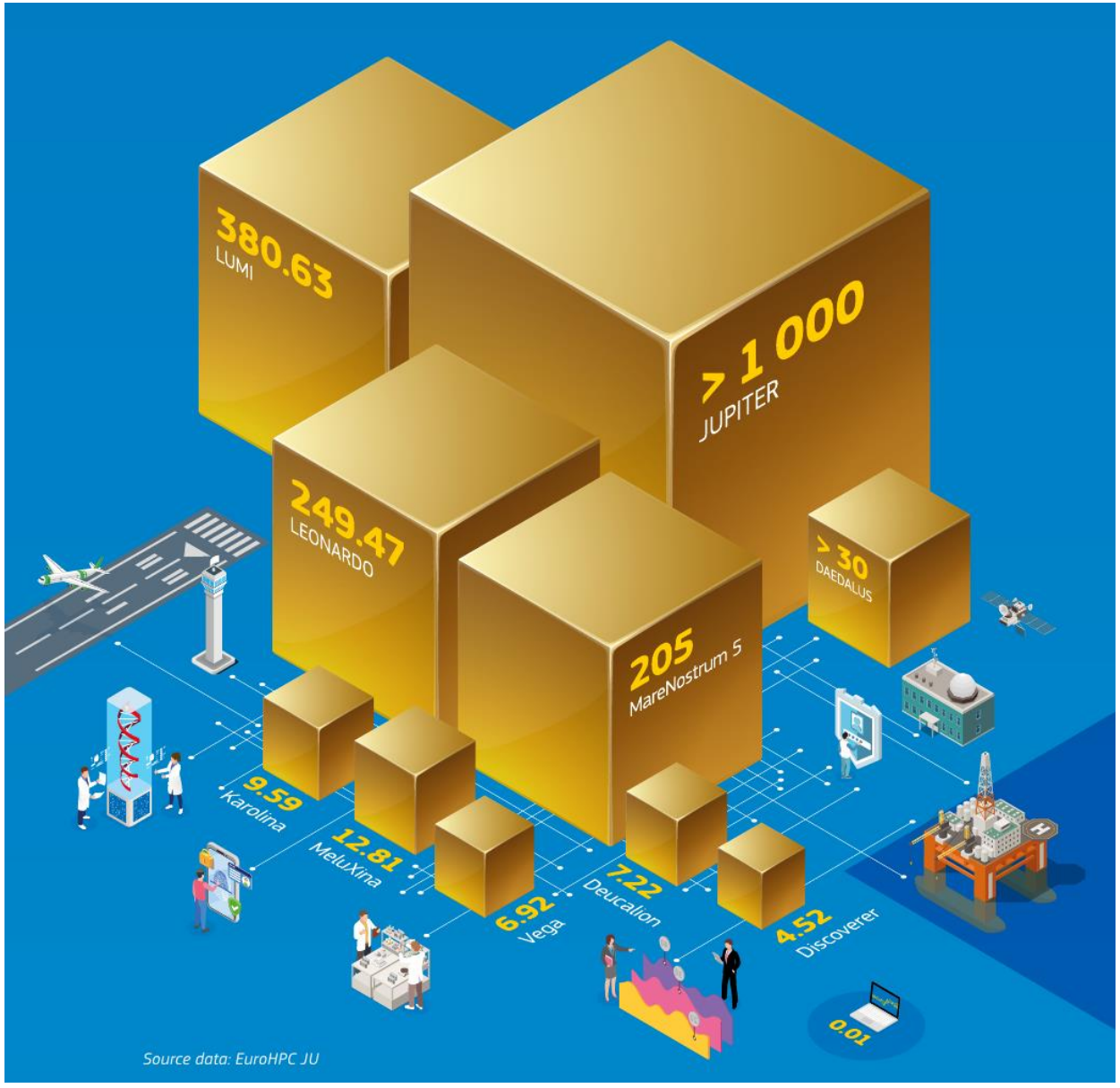
EuroHPC supercomputers & CoEs



bioexcel
Centre of Excellence for Computational Biomolecular Research

esiwace
CENTRE OF EXCELLENCE IN SIMULATION OF WEATHER AND CLIMATE IN EUROPE

CEEC
Centre of Excellence in Exascale CFD

ChEESE

EoCoE

EXCELLERAT

HiDALGO

MAX

MultiScale

PLASMA PEPSC

SPACE

dealii X

MICROCARD

CoE European Excellence in HPC Applications

CASTIEL 2

EuroHPC
Joint Undertaking

JUPITER

The Arrival of Exascale in Europe

fz-juelich.de/jupiter | #exa_jupiter

EuroHPC Joint Undertaking

Federal Ministry of Education and Research

Ministry of Culture and Science of the State of North Rhine-Westphalia

GCS Gauss Centre for Supercomputing

Workshop outline

- 14:00 [30] Welcome & Introduction
- 14:30 [90] EuroHPC CoE & applications presentations (6x15)
- 16:00 [30] *Break*
- 16:30 [30] POP services & EuroHPC concept presentations (2x15)
- 17:00 [50] Panel discussion
  - HPC application CoEs' preparations for exa-scale
- 17:50 [10] Conclusion
- 18:00 *Adjourn*

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Workshop agenda (Part 1)

- 14:00 [30] Welcome & Introduction to workshop (García & Wylie)
  - "European HPC application ecosystem"
    (Guntram Berti, scapos/D)
- 14:30 [90] CoE & applications presentations (6x15)
  - "MaXimizing portability and performance of material modelling on EuroHPC clusters"
    (Laura Bellantani, CINECA/I)
  - "ESiWACE services and benchmark suite for weather and climate"
    (Erwan Raffin, Eviden/F)
  - "dealii-X: Preparing generic PDE solvers for exascale supercomputers"
    (Martin Kronbichler, RUB/D)
  - "STREAmS: portability, performance, maintainability. Can they coexist?"
    (Francesco Salvadore, CINECA/I)
  - "Supporting cutting edge development of LAMMPS with EESSI"
    (Helena Vela, DoITNow!/E)
  - "Improving energy efficiency of SPACE CoE codes"
    (João Barbosa, IT4Innovations/CZ)
- 16:00 [30] *Break*

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Workshop agenda (Part 2)

- 16:00 [30] *Break*
- 16:30 [30] Presentations
  - "POP CoE services and engagements with other CoEs"
    (Marta García-Gasulla, BSC)
  - "EuroHPC concept for applications"
    (Linda Gesenhues, EuroHPC JU/Lux)
- 17:00 [50] Panel discussion (moderator: Guy Lonsdale, scapos/D)
  - HPC application CoEs' preparations for exa-scale
- 17:50 [10] Conclusion (García & Wylie)
- 18:00 *Adjourn*

Performance Optimisation and Productivity

A Centre of Excellence in HPC

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youtube.com/POPHPC

This project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 101143931. The JU receives support from the European Union's Horizon Europe research and innovation programme and Spain, Germany, France, Portugal and the Czech Republic.