



Are current infrastructures suitable for extreme data processing?

Insights, examples and discussion about infrastructure requirements and limitations of the Computing Continuum for extreme analytics, including sustainability and energy-efficiency aspects

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Are current infrastructures suitable for extreme data processing?
Technologies for data management



13 June / 15:30-17:00



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Bill Patrowicz
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Irena Pavlova
GATE, Sofia University

Objectives

- Present **current needs of extreme data processing** with respect to infrastructures, elaborating on major challenges and opportunities for Europe.
- Include **energy efficiency** and **sustainability** aspects as part of the problem equation.
- Introduce **ongoing work in the domain** and proposed solutions to overcome main limitations.
- Showcase **examples** that range from the use of HPC to computing clusters.
- Identify stakeholders willing to engage in validation campaigns in the context of ongoing projects so that industrial needs are well aligned with the technical work proposed by the scientific community.
- **Converge** towards an agenda of themes that are common to several projects and initiatives and can benefit from **joint work to foster collaboration**.

What you will get today

- **Part I. Setting the scene**
 - Introduction/Objectives/Motivation (Nuria de Lama)
 - Overview of the topic and synergies with the EuroHPC-JU Program (Lilit Axner)
- **Part II. How suitable are current Infrastructures to support extreme data processing? Projects (challenges → solutions → roadmap)**
 - Radu Aurel Prodan, Klagenfurt University, Graph-Massivizer
 - Dimitru Roman, SINTEF, DataCloud
 - Irena Pavlova, GATE, enRichMyData
 - Jan Martinovic, IT4Innovations National Supercomputing Center, EXA4MIND
- **Part III. A practical view on the topic: get to know frontrunner examples**
 - State of play of how data centers are addressing complex topics like energy efficiency and shortcomings for extreme data processing (Bill Patrowicz, CEO at Kaiser Research)
 - Green Data Center Digital Twin case (Roberta Turra, CINECA)
- **Panel discussion, Q&A**

Thank you!