



EuroHPC
Joint Undertaking



12th Icelandic HPC Community Workshop

Gróska, Bjargargötu 1, 102 Reykjavík – Entrance A, 1st Floor, Room Fenjamýri
23rd of October 2023 – 5:00 – 7:00 p.m. GMT

Background

The Icelandic High-Performance Computing (IHPC) activities are increasing in academia and industry that also includes related areas such as Artificial Intelligence (AI), Machine Learning (ML), Data Analytics, and Data Sciences. As a result, the IHPC community members created Icelandic Simulation and Data Labs (SDLs)¹, including academic and industrial partners. They form together in a bottom-up fashion the IHPC National Competence Center for HPC & AI in Iceland partly funded by the EuroHPC Joint Undertaking EuroCC project. The IHPC community seeks more collaborations and new members. Based on our successful previous IHPC workshops, we continue with bi-monthly workshops.

Objectives

This workshop aims to bring together a diverse group of Icelandic and international stakeholders to discuss the role of HPC and related areas within Iceland without losing sight of its international links.

The specific objectives of the workshop are to:

- **Document competencies, achievements, activities, and lessons learnt** from participating stakeholders of Icelandic HPC efforts and associated international activities.
- **Perform community building** in developing new successful joint activities between academia and industry, potentially creating new joint Simulation and Data Labs or collaborations.
- **Identify best practices and core principles with a set of recommendations** for developing the future Icelandic HPC ecosystem, including necessary skills, funding opportunities, applications, Centre of Excellences, community events, and sustainable infrastructure developments.

Participants

Approximately 35-40 participants from Iceland, Germany, and the USA. Participants will include:

- Selected Icelandic companies and SMEs from different sectors with interest in HPC & AI
- Academic representatives from the University of Iceland and Simulation and Data Labs
- The Icelandic Center for Research (Rannís), Startup Iceland, and Icelandic Technology Clusters
- US company that forms government, industry, and academic cooperative research coalitions

Output

The following outputs are expected:

- A short synthesis paper that documents Icelandic competencies, field experiences and achievements in using and/or offerings HPC & AI solutions and consideration of 'best practices'
- Update on a strategy paper responding to HPC & AI issues and challenges identified during the workshop, including potential options for jointly engaging in EuroHPC funding opportunities
 - Strengthened informal networks and transfer of experiences and lessons learnt

¹ Icelandic HPC (IHPC) Community Web page, Online: <https://www.ihpc.is/>



Agenda draft (number/order of speakers & timing subject to change):

5:00 – 5:15	Informal Welcome – Participant Introduction & Discussions (Coffee/Tea/Refreshments, Snacks, and Sandwiches available)	All
5:15 – 5:20	Welcome Address - 12th IHPC-Workshop & Report from the EuroCC IHPC National Competence Center for HPC & AI.	Prof. Dr. – Ing. Morris Riedel (University of Iceland)
5:20 - 5:25	Q & A	All
5:25 - 5:35	Entering a paradigm shift in Turbulence – A Combined Theory and Data Intensive Approach.	Clara Marika Velte (DTU)
5:35 - 5:40	Q & A	All
5:40 - 5:50	Cultivating Knowledge: Managing Plant Data, Linking Data to Models, and the Benefits of Augmented Data in Plant and Crop Sciences.	Felix Bauer (Forschungszentrum Jülich)
5:50 - 5:55	Q & A	All
5:55 - 6:10	Coupling Simulations with Visualization and AI on Modular Supercomputers.	Dirk Norbert Helmrich (University of Iceland)
6:10 - 6:15	Q & A	All
6:15 - 6:25	Supercomputing in the Browser at JSC - Past, Present, Future.	Jens Henrik Göbbert (Forschungszentrum Jülich)
6:25 - 6:30	Q & A	All
6:30 - 6:40	Enhancing Land-Use-Land-Cover Classification Systems: Harnessing Large-Scale Satellite and Street-Level Geo-Tagged Images.	Surbhi Sharma (University of Iceland)
6:40 – 7:00	Workshop Closing – Concluding remarks with next steps (Coffee/Tea/Refreshments, Snacks, and Sandwiches available)	All

Workshop Location

Address: Gróska, Bjargargötu 1, 102 Reykjavik, Iceland²

Entrance A, 1st Floor, Room Fenjamýri

Gróska 1st Floor

² Gróska Building in the Science park, Online: <https://groska.is/en/home/>

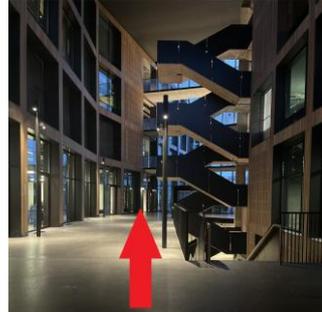


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Co-funded by
the European Union

Gróska Outside



Online Event Information & Previous IHPC Events:

Check out our IHPC Community Webpage, Online: <https://ihpc.is/community>

Workshop Organization: Prof. Dr. -Ing. Morris Riedel, IHPC National Competence Center for HPC & AI (morris@hi.is)

