



EuroHPC
Joint Undertaking



Co-funded by
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18th Icelandic HPC Community Workshop

Gróska, Bjargargötu 1, 102 Reykjavík – Entrance A, 1st Floor, Room Fenjamýri

5th December 2024 – 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 - 18th IHPC Workshop & Overview	Prof. Dr. Morris Riedel (University of Iceland)
5:20 - 5:30	Geospatial data for businesses	Julio Cesar Rivera (Fullbright Scholar @ University of Iceland)
5:30 - 5:35	Q & A	All
5:35 - 5:45	Integrating deep neural network and quantum chemical calculations for catalyst discovery.	Egill Skúlason (University of Iceland)
5:45 - 5:50	Q & A	All
5:50 - 6:10	Deep Forest Analysis with Orb Vision Tree Scanner Mobile App	Íris Ólafsdóttir / Jón Arnar (SME Orb ehf)
6:10 - 6:15	Q & A	All
6:15 - 6:25	Jupyter Iceland Project	Sigurður Detlef Jónsson (University of Iceland)
6:25 - 6:30	Q & A	All
6:30 - 6:40	Hackathon – overview.	Anton Örn Karlsson (Hagstofa Íslands)
6:40 - 6:45	Q & A	All
6:45 - 6:55	Gagnathon participants present their project: "Why build Borgarlína if we already have a bus system that people don't use?"	Aleksandra Weinbach & Samuel Kohler
6:55 - 7:00	Q & A	All



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Workshop Location

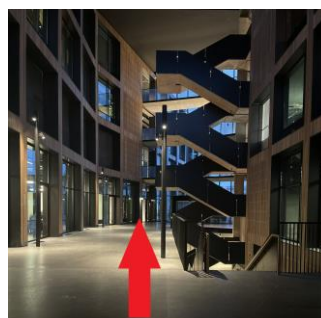
Address: Gróska, Bjargargötu 1, 102 Reykjavik, Iceland²

Entrance A, 1st Floor, Room Fenjamýri

Gróska Outside



Gróska 1st Floor



Online Event Information & Previous IHPC Events:

Check out our IHPC Community Web page, Online: <https://www.ihpc.is/>

Workshop Organization:

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

Sigríður Daney Sigurðardóttir, Assistant to Prof. Dr. – ing. M. Riedel (sdaney@his.is)

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

