3rd Icelandic HPC Community Workshop
Gróska, Bjargargötu 1, 102 Reykjavik – Computer Science HI, 3rd Floor, Room Ada
15th December 2021 – 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 succesful 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 30-35 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 Centre 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

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[1] Icelandic HPC (IHPC) Community Web page, Online: https://ihpc.is/community/

Agenda (version 3)

Time	Session	Speaker
5:00 – 5:10	Informal Welcome – Participant Introduction & Discussions *(Coffee/Tea/Refreshments, Snacks, and Sandwiches available)*	All
5:10 – 5:15	3rd IHPC Workshop Opening Remarks	Prof. Dr. Jón Atli Benediktsson (University of Iceland)
5:15 – 5:25	Welcome Address - 2nd IHPC Workshop & SC2021 Results of the EuroCC IHPC National Competence Center for HPC & AI	Prof. Dr. – Ing. Morris Riedel (University of Iceland)
5:25 – 5:30	Q & A	All
5:30 – 5:40	High-Performance, Specialized and Quantum computing for Remote Sensing – A New GRSS Working Group	Dr. Gabriele Cavallaro (Juelich Supercomputing Centre)
5:40 – 5:45	Q & A	All
5:45 – 5:55	Automated creation of art with deep learning-based methods	Prof. Dr. Hafsteinn Einarsson (Nordverse)
5:55 – 6:00	Q & A	All
6:00 – 6:10	Simulation & Data Lab Health & Medicine	Chadi Barakat, PhD Student (Juelich Supercomputing Centre)
6:10 – 6:15	Q & A	All
6:15 – 6:25	Is the Icelandic parliamentary voting system exceptionally sensitive to small changes in the vote?	Prof. Dr. Kristján Jonasson (University of Iceland)
6:25 – 6:30	Q & A	All
6:30 – 6:40	Two-phase snow avalanche modelling with OpenFOAM	Dr. Tómas Jóhannesson (Icelandic Meteorological Office)
6:40 – 6:45	Q & A	All
6:45 – 7:00	Workshop Closing – Concluding remarks with next steps *(Coffee/Tea/Refreshments, Snacks, and Sandwiches available)*	All

Workshop Location
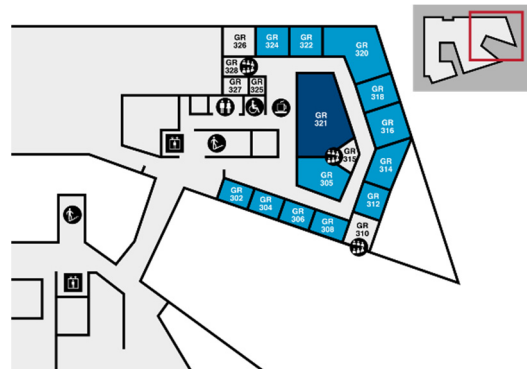
Address: Gróska, Bjargargötu 1, 102 Reykjavik, Iceland[2]
Computer Science Department of HI[3], 3rd Floor, Room Ada
(Refreshments are provided to participants during the event at the event location)

Gróska Outside

Gróska 3rd Floor

Online Event Information & Previous IHPC Events:
Check out our IHPC Community Web page, Online: https://ihpc.is/community/

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[2] Gróska Building in the Science park, Online: https://groska.is/en/home/
[3] The University of Iceland, Computer Science Department, Online: https://www.hi.is/haskolinn/groska