Mikael Carp

From: Training-announce <training-announce-bounces@lists.naiss.se> on behalf of training-announce@lists.naiss.se
Sent: den 9 november 2023 17:51
To: training-announce@lists.naiss.se
Subject: [Training-announce] Training on sensitive data handling, message passing, programming formalism. General introductions to NAISS HPC system. Zoom-in and the NAISS User forum
Attachments: ATT00001.txt

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NAISS training newsletter No 14
9th November 2023

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Welcome to a new edition of the NAISS training newsletter. We newly list two event on sensitive data handling on our Bianca system. The MPI course is closing registration this weekend. The last Zoom-in, our interactive online discussion and support forum is scheduled for the 7th December. We have number of reminders on previously published training events.
We want to highlight the NAISS User forum on 5-6 December in Linköping. Registration is closing early next week.

NAISS events

- **Last chance: An introduction to parallel programming using Message Passing with MPI, 21, 22, 28 and 29 November 2023**
- **Online Training: Programming Formalisms course, Nov 27 - Dec 1, 09:00-16:00**
- **Online training seminar: Introduction to Alvis, 28 November from 13:15 to 15:00**
- **Online training course: Using Python in an HPC environment, UPPMAX & HPC2N, 1 December 2023**
- **Online workshop: Introduction to Bianca: Handling Sensitive Research Data, 11 December 2023**
- **Online hackathon: Bianca In-Depth: Improve Your Handling of Sensitive Research Data, 14 December 2023**
- **Online training seminar: Cluster architecture and job submission, 12th December 2022 at 13:30**

Online interactive support and discussion forum

- **NAISS Zoom-in - a virtual open-house, 7 December from 14:00 until 15:00**

NAISS User forum

- **NAISS User Forum and All Hands 2023, 5-6 December 2023, Linköping**

ENCCS training overview

- **Publicly available training material**
- **Training events from around Europe**

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NAISS training

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Online course: An introduction to parallel programming using Message Passing with MPI, 21, 22, 28 and 29 November 2023
Collaboration between HPC2N, LUNARC and PDC

Message Passing is presently a widely deployed programming model in massively parallel high performance computing. Message Passing is suitable for programming a wide range of current computer architectures, ranging from multi-core desk top equipment to the fastest HPC systems in the world, offering several hundred thousand processing elements.

This online course is at the beginners level and assumes no prior experience in parallel computing. The concepts behind message passing and distributed memory computing will be introduced and the syntax of the key MPI calls will be explained. The course will include point-to-point communications, non-blocking communication and the collective communications calls. Live demonstrations and practical sessions to deepen the understanding of the lectures will be part of the course. At the end of the course participants should be able to write their own MPI programs at an intermediate level. The teaching language will be English.

For more information and access to registration, please refer to the event pages at HPC2N, LUNARC and PDC:

- https://www.hpc2n.umu.se/events/courses/2023/fall/mpi
- https://www.lunarc.lu.se/learning-more/training-courses/an-introduction-to-parallel-programming-using-message-passing-with-mpi-21-22-28-and-29-november-2023/
- https://www.pdc.kth.se/about/events/an-introduction-to-parallel-programming-using-message-passing-with-mpi-part-i-1.1281906

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Online Training: Programming Formalisms course, Nov 27 - Dec 1, 09:00-16:00
Collaboration between UPPMAX and NBIS

This full 5-day course aims to give scientists, bioinformaticians and other research engineers with some experience in programming and scripting an understanding of the underlying principles of software development, design, and programming. The course aims to strengthen the understanding of more advanced programming concepts, ability to produce more reusable scripts through modular programming and to enable a better understanding of how to evaluate a script or programs performance.

We will cover an introduction to Algorithms and Data structures, Programming Paradigms especially structured and object oriented programming, and to give an overview of other paradigms like functional programming. Modular development and (code) reusability, testing and optimisation.

We will cover theory with bridging practical examples and applications to enhance the theoretical understanding of the principles. The material is language agnostic, we do use git and Python for exercises.

For more information and registration, please visit: https://www.uppmax.uu.se/support/courses-and-workshops/programming-formalisms/.

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Online training seminar: Introduction to Alvis, 28 November from 13:15 to 15:00

This is seminar is for new and prospective users of the NAISS cluster for AI/ML, Alvis. You will learn all that you need to know to get started on the system.

Time: 28 November 13:15
Location:https://chalmers.zoom.us/j/68461684795

For more information visit https://www.c3se.chalmers.se/#current-and-upcoming-events

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Online training course: Using Python in an HPC environment, UPPMAX & HPC2N, 1 December 2023

This course aims to give a brief, but comprehensive introduction to using Python in an HPC environment. You will learn how to use modules to load Python, how to find site installed Python packages, as well as how to install packages yourself. In addition, you will learn how to use virtual environments, write a batch script for running Python, use Python in parallel, and how to use Python for ML and on GPUs.

The course is a cooperation between UPPMAX and HPC2N. The instructors will use UPPMAX's systems for demos and there will be hands-on exercises for the participants.

This course will consist of lectures interspersed with hands-on sessions where you get to try out what you have just learned.

Remote/online participation: The course will be completely online and we will use Zoom. More information about connecting and such will be sent to the participants close to the course.

The goal for the course is that you will be able to

- Load Python modules and site-installed Python packages
- Create a virtual environment and install your own Python packages to it
- Write a batch script for running Python
- Use Python in parallel
- Use Python for ML
- Use GPUs with Python

Prerequisites: familiarity with the LINUX command line, basic Python

For more info and registration, please visit https://www.hpc2n.umu.se/events/courses/2023/fall/hpc-python

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Online workshop: Introduction to Bianca: Handling Sensitive Research Data, 11 December 2023

Are you just beginning to work with sensitive data in your research? If yes, welcome to a 1-day introduction to handling sensitive data on the UPPMAX cluster, Bianca. We will tell you about NAISS-SENS, how to login to Bianca, transfer files via wharf, basics of the SLURM workload manager and the module system.

The workshop is intended for beginner users of Bianca.

You do not need to be a member of a NAISS-SENS project in order to join the workshop. A SUPR course project will be available to all participants. The workshop will consist of both lectures and exercise sessions.

When: Monday December 11
Where: online via Zoom

For more information and registration please visit: https://www.uppmax.uu.se/support/courses-and-workshops/bianca-intro-2023.

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Online hackathon: Bianca In-Depth: Improve Your Handling of Sensitive Research Data, 14 December 2023

Are you already working with sensitive data in your research and feel that your workflows can be improved? If yes, welcome to 1 day hackathon where you'll learn smarter ways of working on the Bianca cluster. We will tell you how to do file transfer from a terminal, advanced SLURM, using IDEs (i.e. RStudio and/or VSCode), and installing custom software and packages.

The workshop will consist of short lectures and the content will be driven by questions from the participants.

To attend this course, we expect you to be able to login to Bianca, submit a Slurm bash script, and know how to transfer files.

You do not need to be a member of a NAISS-SENS project in order to join the workshop. A SUPR course project will be available to all participants.

When: Thursday December 14
Where: online via Zoom

For more information and registration please visit: https://www.uppmax.uu.se/support/courses-and-workshops/bianca-hackathon-2023.

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Online training seminar: Cluster architecture and job submission, 12th December 2022 at 13:30

This event explains key features of a contemporary HPC cluster, such as deployed at LUNARC and throughout NAISS. It will explain the principles behind the job scheduler and how the scheduler can be used to accomplish your computational work in an efficient manner. The examples will utilise the SLURM scheduler, which is deployed on the NAISS resources.

The event is organised as an online seminar. The seminar addresses users who have recently started using HPC systems and prospective users considering using an HPC system in the near future.

Time: 12th December at 13:30

For more information and registration visit: https://www.lunarc.lu.se/learning-more/training-courses/cluster-architecture-and-job-submission-6-december-2023/

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Online interactive support and discussion forum:

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NAISS Zoom-in - a virtual open-house, 7 December from 14:00 until 15:00

You are invited to a virtual meeting room. Inside the meeting room we like to discuss services offered by NAISS and how they can be used for your computational needs, help you process your data and visualise your results. Participants are highly encouraged to pose their own questions.

We also expect to have experts available from C3SE, HPC2N and LUNARC, to discuss the University operated HPC services at Chalmers, Umeå and Lund University.

The zoom-link for the session on 7 December is: https://lu-se.zoom.us/j/62457321721?pwd=c0xHK0oweGpyOE41c0NPL0doeGZpQT09

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NAISS User forum:

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NAISS User Forum and All Hands 2023, 5-6 December 2023, Linköping

The User forum is the chance for all NAISS users, representing all diverse fields of science, to bring forward their views and perspectives on NAISS. Our infrastructure organisation is in its its first year and stand before large investments and strategic decisions. So it is a crucial time to make your voice heard. We hope to see you in Linköping in December.

The NAISS User forum is held in parallel with the first NAISS all-hands meeting, bringing together the staff from across Sweden, working with or in close collaboration with NAISS. The all-hands meeting will share part of the program with the NAISS User forum, while some sessions will be distinct.

Registration deadline: 13 November

For more information and access to registration, please visit: https://www.naiss.se/event/naiss-user-forum-and-all-hands-2023

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ENCCS training:

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ENCCS has asked us to publicise their online training material overview

Publicly available training material:
ENCCS develops and maintains a library of training material on topics in HPC, AI and Quantum Computing which is suitable for self-paced learning. Find the library at https://enccs.se/lessons/.

Training events from around Europe
Many HPC centres and National Competence Centres around Europe offer diverse HPC training workshops open to anyone in Europe, many of which are online. Upcoming workshops can be found at https://hpc-portal.eu/upcoming-events-courses.