Computing Course November 2022

Report of Contributions

Contribution ID: **2**   Type: **not specified**

You and your research data

Wednesday, 23 November 2022 10:00 (30 minutes)

- Know about the FAIR principles and are able to assess your own data product with respect to these principles.

- Know the 5 Principles and know where to find the full text and the Standards for good research practices (section 3).

- Know about the Code of Conduct for Scientific integrity (2018) and its relation to reproducibility, documentation, reporting (including FAIR meta-data), and the prevention of CoIs.

- Know that students' reports are to be treated in confidence.

- Know about the Dublin Core meta-data elements

Presenter: RADERSMA, Reinder (Data Competence Center - CWI/NWO-I)

Session Classification: Computing Course

Contribution ID: **3** Type: **not specified**

When your data becomes part of something bigger

Wednesday, 23 November 2022 10:30 (1h 30m)

- Know common persistent identifier schemes; at least DOI, hdnl.net and ORCID.
- Possess an ORCID identifier and know how to update basic information in their ORCID record.
- Know the importance of applying licenses to data and software for re-usability.
- Know the basic licenses for data and software, and know where to find guidance on license application and the main differences between licenses.
- Know the basic outline of a data management plan.
- Know how to fill in a mock data management plan in NWO format using the on-line tools.

Presenter: GROEP, David (Nikhef)

Session Classification: Computing Course

Contribution ID: **4** Type: **not specified**

When software enters the stage

Wednesday, 23 November 2022 13:00 (2 hours)

- Learn how to structure directories to manage processes, incoming, intermediate, and final research data, and to keep (persistent) references to data elements relative to its root.

- Learn about research information repositories, and at least get to know Zenodo and arXiv.

- Learn how to upload mock data or slides to Zenodo (in the sandbox.zenodo.org environment) and complete the meta-data requirements.

- Learn about the importance of (immutable) journal keeping and how to relate journal entries (and Jupyter notebooks) to the corresponding data

Presenter: AAIJ, Roel

Session Classification: Computing Course

Contribution ID: **5** Type: **not specified**

When you are in need of some help

Wednesday, 23 November 2022 15:20 (1h 40m)

- Know where to find research data management guidance at Nikhef (web pages, mail, in-person).
- Know where to find help & guidance for research issues and integrity at Nikhef
- Room for questions and in-depth help

Presenter: GROEP, David (Nikhef)

Session Classification: Computing Course

Contribution ID: **6**
Type: **not specified**

Welcome & Introduction

Tuesday, 22 November 2022 09:00 (15 minutes)

- Introduction of the services that are going to be talked about in the Computing Course
- Know where to ask for help with questions or problems
- Know where to find documentation
- For newcomers: highlight the centralised services of Nikhef

Presenter: TEMPLON, Jeff

Session Classification: Computing Course

Contribution ID: **7**   Type: **not specified**

You and a laptop

Tuesday, 22 November 2022 09:30 (30 minutes)

- Know how to encrypt your harddrive
- Know how to backup your laptop
- Know how to setup EduVPN
- Know how to mount your home dir on your laptop; do's and don'ts
- Know about different local storage areas; and which to use for what

Presenter: VAN DER WAL, Bart

Session Classification: Computing Course

Contribution ID: **8**   Type: **not specified**

You, your laptop, and somebody else; how to work together

Tuesday, 22 November 2022 10:00 (1 hour)

- Know how to send big files: SURF Filesender
- Know how to find and use SURFdrive and CernBox
- Understand which services are safe to use and which are not
- Know how to use Identity Services & Federated Login
- Know how to use Zoom and Mattermost

Presenter: GROEP, David (Nikhef)

Session Classification: Computing Course

Contribution ID: **9**   Type: **not specified**

You, login and Linux

Tuesday, 22 November 2022 11:20 (1 hour)

- Know how to login; ssh keys, protecting ssh keys, do's and don't
- Understand basic principles of security with passwords
- Know how to setup and safely use (proxy) tunnels; do's and don'ts
- Know how to manage your personal home page
- Understand and apply general unix principles
- Know about the basics of scripting and programming
- Know how to use the most common command line tools
- Understand file permissions and how to change them
- Understand how to use login servers and what they're not intended for

Presenter: VAN DOK, Dennis

Session Classification: Computing Course

Contribution ID: **10**   Type: **not specified**

You, Jupyter, submit nodes and interactive nodes

Tuesday, 22 November 2022 13:30 (45 minutes)

- Understand shared resource etiquette for using interactive nodes
- Understand when to use your home directory, /project, /data, and /dcache for storage (Stoomboot)
- Know how to login and open Jupyter Notebooks on callysto.nikhef.nl (JupyterHub)
- Know how to setup a user environment to run group's analysis framework (with conda in some cases)
- Know how to obtain a grid x509 proxy certificate and add it to a browser
- Understand basic principles of security with certificates
- Know how to view your Nikhef dcache storage from your browser

Presenters: HESTER, Mary (Nikhef);   AAIJ, Roel

Session Classification: Computing Course

Contribution ID: **11**
Type: **not specified**

You, stoomboot, and a thesis as a present

Tuesday, 22 November 2022 14:45 (55 minutes)

- Understand when and how to submit a (CPU) batch job
- Understand basic principles and use of CVMFS, Containers and Conda
- Know how batch system queues work and what resources are available
- Know how to write a job description file for a (local? Grid?) batch job
- Know how to write a batch script (script that runs non-interactively & what is diff with previous?)
- Know how to write data to dcache using data transfer protocols such as xrootd, webdav, gridftp
- Understand the pitfalls for scaling up batch jobs

Presenter: VAN DOK, Dennis

Session Classification: Computing Course

Contribution ID: **12** Type: **not specified**

When the stoomboot is not enough

Tuesday, 22 November 2022 15:40 (40 minutes)

- Understand when and how to submit a GPU job
- Know how to add VO information to grid proxy certificate (use grid-proxy-init / voms-proxy-init)
- Know how to write efficient code, and what not to do
- Know how to find your experiment framework (sft.cern.ch)

Presenter: AAIJ, Roel

Session Classification: Computing Course

Contribution ID: **13** Type: **not specified**

When you are in need of some help

Tuesday, 22 November 2022 16:20 (20 minutes)

- Who are you going to call?
- Where to go when something is wrong
- Learn about basic troubleshooting tools
- Helpdesk, status.io, stbc users mailinglist
- Office Hours

Presenter: VAN DER WAL, Bart

Session Classification: Computing Course

Contribution ID: **14**   Type: **not specified**

You and others; Security & Privacy

Tuesday, 22 November 2022 09:15 (15 minutes)

- Understand why security is important for you and your colleagues
- Learn basic measures to work securely
- Understand what is meant with privacy: rights and responsibilities

Presenter: STARINK, Ronald

Session Classification: Computing Course