Research School in Subatomic Physics

Onderzoekschool Subatomaire Fysica (OSAF)

About this document

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Guidelines concerning attendance to the Nikhef Computing Course and the RDM/RDI part

1.- Introduction

Nikhef offers (at least) once per year a general course on **Computing at Nikhef**, see for example the agenda for the November 2022 course. This course is aimed at **PhD candidates and postdocs** and also open to other interested Nikhef personnel. The course is organized by the PDP and CT groups.

2.- Contents

The course is divided into two parts. In the first part the participants learn about Nikhef's centralized IT services, receive hands-on workshops, and follow practical examples and do's and don'ts of which services (not) to use and how. This first session (lasting one day) covers topics including:

- How to login; (protecting) ssh keys, proxy tunnels

- General unix principles, basic scripting and programming
- How to use interactive nodes, login servers and storage (dCache) and why
- Using certificates, how to; security, how user environments work and analysis frameworks
- Fall in love with Stoomboot, batch jobs, GPU's, system queues
- Learn how to work with CVMFS, containers and Conda
- Where to go for help

The second day of the course focuses on the topics of **Research Data Management (RDM) and Research Data Integrity (RDI)** in a mix of theoretical and practical exercises. The goal of this second day is to give the course participants the knowledge, setup and experience to intertwine RDM in their (daily) work and research. Topics to be covered include:

- FAIR principles, Dublin Core Metadata standard, create your own ORCID
- How to fill in a (mock) data management plan & Code of Conduct
- Adding licenses for data and software re-usability, and why this is crucial
- Research information repositories (Zenodo, arXiv); how to use them
- Importance of, and how to do (immutable) journal keeping
- How to relate journal entries (and Jupyterhub) to corresponding data

Whenever possible, application examples to research in the areas in which Nikhef is active (collider physics, gravitational waves, astroparticle physics) will be provided.

3.- Attendance Requirements

PhD candidates enrolled in the Nikhef's National Graduate School of Subatomic Physics (OSAF) are **required to attend at least once before their graduation the RDM/RDI part** of the Computing Course at Nikhef. Attending the first part (on general computing topics) is of course highly encouraged but not mandatory. The organizers of the Computing Course will keep track of attendance and together with the OWC secretariat provide attendance certificates at the end of the course for the RDM/RDI part. This requirement does not hold for PhD candidates enrolled in the DRSTP Graduate School.

The Nikhef education committee (OWC) attributes great value to training in these topics and hence considers that RDM/RDI training should be followed at least once before the PhD candidates graduate. We note that this course is not exclusive, but rather complements, related courses that are part of the University partners graduation requirements, such as general courses on Scientific Integrity.

Transition regulations for PhDs graduating before August 2023. Since the RDM/RDI part of the course is organized for the first time in November 2022, PhD candidates who graduate before August 2023 are not required to follow the course (though they are highly

encouraged to follow it). PhD candidates graduating after August 2023 will be required to have attended this course as part of their graduation requirements.

3.- Hybrid and remote participation.

The Nikhef computing course, including its RDM/RDI component, has a strong interactive component and relies on active discussions, hands-on exercises and tutorials, and cross-talk with the teachers and other participants. For this reason, **the default is attendance in person.** We note that being one of the official training activities proposed by OSAF, participants from outside Amsterdam are eligible for reimbursement of travel and accommodation expenses and should make arrangements for this with their supervisors.

This said, we understand that attendance in person may not always be possible, for example when the PhD candidates are stationed in a foreign lab such as CERN or Virgo. For this reason, there will be a **live streaming option** and participants are thus given the chance to participate in the course remotely via Zoom. In order to request remote participation in the course via Zoom, please send an email to Catharina Vaendel (cvaendel@nikhef.nl) with Juan Rojo (j.rojo@vu.nl) in cc **justifying your request**. We note that only once the request is approved you will be added to the official list of the course participants.