D3.2 Instrumentation and Proposal Design Workshop Summary Notes

EXOHOST

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Document Control Page

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- Editorial, formatting, and spelling
- Clarification

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Name	**Role**	**Action**	**Date**
Anna Aret	Member of steering board	Reviewed, approved	14.06.2024
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Mihkel Kama	Member of steering board	Reviewed, approved	14.06.2024
Eric Stempels	Member of steering board	Reviewed, approved	14.06.2024

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1 Introduction

The Instrumentation and Proposal Design Workshop was divided into 2 parts. Part 1 was dedicated to instrumentation and focused on spectroscopy: the basic functioning of spectrographs (long-slit, echelle, fiber/integral field), and available instrumentation and its location (ESO, HST, JWST and other major ground-based observatories). Part 2 focused on the good practice of preparing observing proposals for various facilities.

The workshop was held at Ångström Laboratory, Uppsala University and featured lectures from Uppsala University and the Austrian Academy of Sciences. The workshop was designed for doctoral students, postdoctoral researchers and advanced master's students specializing in astrophysics. There were 22 participants. The workshop was financed by the EU Horizon Europe Twinning project EXOHOST and UK Research and Innovation.

1.1 Agenda

Day 1: Instrumentation

- Introduction (Nikolai Piskunov)
  - Multi-object vs IFU spectrographs (4MOST/MUSE)
  - Spectrometers employing slit (CRIRES+), single-fiber (HARPS/ESPRESSO) and multi fiber (FLAMES)
  - Spectrometers employing echelle cross-dispersed optical elements
- Spectral resolution, dispersion, signal-to-noise, use of AO (Nikolai Piskunov)
- Introduction to astronomical detectors, with relevant observational and data reduction aspects (Nikolai Piskunov)
- Stellar spectroscopy with JWST (Erik Zackrisson)
- Stellar spectroscopy with facilities reachable via Opticon (Nikolai Piskunov)

Day 2: Preparing observation proposals

- Stellar spectroscopy with ESO instrumentation (La Silla, Paranal, E-ELT) (Nikolai Piskunov)
- Typical structure and content of observing proposals (Oleg Kochukhov)
- How to use S/N calculators in the context of observing proposals (Luca Fossati)
- What happens to my proposal once it is submitted? (Luca Fossati)
- What can go wrong? How to mitigate losses? Visitor vs service mode & backup targets (Oleg Kochukhov)

1.2 Lecture Materials

The lecture slides have been uploaded to Owncloud and are accessible to the general public from the EXOHOST website under the Instrumentation and Spectral Surveys Workshop event page (https://exohost.ut.ee/instrumentation-and-spectral-surveys-workshop/). Lecture recordings have been uploaded to EXOHOST Sharepoint and are only accessible to the consortium members.

Lecture slides can be found here:

- Lecture slides (EXOHOST Sharepoint; only accessible to project participants)
- Lecture slides (Owncloud; public, available for workshop participants and also accessible from the EXOHOST website).

Recordings of lectures can be found here:

- Lecture recordings (EXOHOST Sharepoint; only accessible to project participants)

1.3 Participants

The workshop had 22 participants from UTARTU, UU, UCL, OEAW and Vilnius University (Institute of Theoretical Physics and Astronomy). There were 18 participants on-site and 4 participants online.

The participant lists can be found in a private folder in the EXOHOST Sharepoint (only accessible to project participants): On-site and online participants.pdf

1.4 Photos of the Workshop (Photos by Camilla Thulin)

Photo 1. Group photo of the Spectral Surveys Workshop on-site participants.

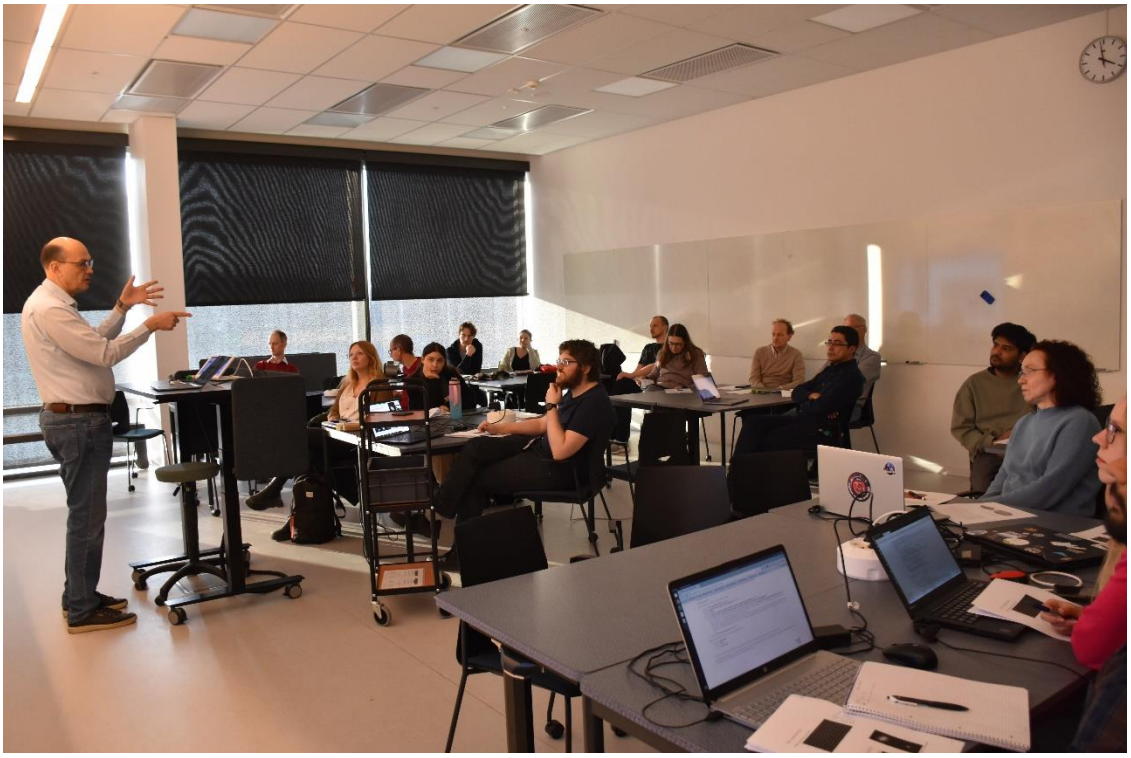

Photo 2. Professor Nikolai Piskunov from the Department of Physics and Astronomy at Uppsala University giving a lecture.