

Svante Resjö

Nova course 2022

NOVA PhD course – Common Data Standards and Integrative Analytic Methods for Plant Phenotyping, 28 November – 2 December, 2022, 3 ECTS

Course schedule

Course preparations: Prepare article for journal club + present the data management strategy of home institution/university and whether that would accommodate phenomics data well + prepare AI phenomics exercise to be sent out one week before.

Monday: Introduction to phenotyping and high-throughput imaging

09.00 – 10.00 Course introduction and teacher and student introductions (Erik Alexandersson, SLU)

10.00 – 11.00 Introduction to phenomics (Cairo Westergaard, UCPH)

11.00 - 12.00 Imaging in high-throughput facilities (Sylvain Poque, UH)

12.00-13.00 Lunch break/Student introductions

13.00-16.00 Lectures and demos + exercises on Hyper- and multispectral imaging (Cairo & Sylvain)

Tuesday: Spectral imaging, imaging data and common data standards

09.00- 12.00 Workshop 1 - Multispectral data processing practical (Cairo, Sylvain, Svante Resjö, Tatu Polvinen, UH, Greg Konert, UiT)

12.00-13.00 Lunch break

13.00 – 14.00 Workshop 1 sum up

14.00 – 16.00 Lecture on ontologies

16.00 – 17.00 Workshop 2 - Introduction to MIAPPE, (Célia Michotey, INRAE)

Evening: Preparation for literature study presentation

Evening: Ecotype mingle, Lund

Wednesday: Large-scale phenotyping (note in Blå Hallen, Lund)

09.00 – 10.00 Field phenotyping (Lars Eklundh, LU)

10.00 – 11.00 Research in Nordic HTP facilities

11.00 – 12:00 Working with common data standards in NordPlant (Tatu/Cairo/Sylvain)

12.00-13.00 Lunch break

13:00 NordPlant annual day

19.00 Social event: Dinner

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Thursday: Analysis and interpretation of phenomics data

9.00-12.00 Phenomics AI with exercise, Antoine Harfouche and Farid Nakhle (UNITUS)

12.00-13.00 Lunch break

13.00-16.00 Data processing hackathon

-13.00-14.00 MIAPPE and how import data into PHIS (Sylvain and Tatu)

-14.00-16.00 PlotCut2 on preloaded USB and demo of PlotCut3 (Cairo and Sylvain)

Friday: Integration of phenotyping and other data

9.00-10.3 Journal club presentation and discussion (Cairo, Sylvain, Tatu, Erik, Svante)

11.30 – 12.00 Integrating physiological data (Sylvain)

12.00-13.00 Lunch break

13.00-15.00 Presentation of home institution/university data management structure with shot introduction by Tatu

15:00 Course wrap up and evaluation

16.00 Course end