

3rd APPN MEETING

8:30 – 8:55

Welcome Coffee and REGISTRATION

9:00 – 9:10

Welcome Remarks: **Gernot Bodner** – local organizer, Dep. of Crop Sciences, University of Natural Resources and Life Sciences (BOKU), AT

9:10 – 9:20

Opening speech: **Christian Obinger**, Vice Rector for Research, University of Natural Resources and Life Sciences (BOKU), AT

9:20 – 9:50

Roland Pieruschka, Project Manager ESFRI EMPHASIS, IBG-2: Plant Sciences Forschungszentrum Jülich, DE
“EMPHASIS – European research infrastructure to integrate plant phenotyping”

9:50- 10:10

Jakub Jez, Head Plant Sciences Facility, Vienna BioCenter Core Facilities (VBCF) & Chair, Austrian Plant Phenotyping Network (APPN), AT
“APPN: Building the Austrian Plant Phenotyping Community and Infrastructure”

10:10 – 10:30

COFFEE BREAK and Poster Session

10:30 – 10:50

Hermann Bürstmayr, Head Institute of Biotechnology in Plant Production, University of Natural Resources and Life Sciences (BOKU), AT
“Future challenges for Austrian plant breeding and opportunities from modern phenotyping approaches”

10:50 – 11:30

Key Note: Helge Aasen, ETH Zürich, Dep. of Environmental System Science, CH
“Low-altitude / high-resolution remote sensing for field-phenotyping”

11:30 – 12:00

OPEN DISCUSSION on Plant Phenotyping initiatives, infrastructures and problems

12:00 – 13:00

LUNCH and Poster Session

Scientific session 1: Chair Boris Rewald

13:00 – 13:20

Pieter Clauw, Nordborg Lab, Gregor Mendel Institute of Molecular Plant Biology (GMI), AT
*“Combining growth chamber simulations and field experiments to tackle temperature adaptation in *Arabidopsis thaliana*”*

13:20 – 13:40

Andreas Honecker, INRES – Plant Breeding, University of Bonn, DE
“RGB-Image based phenotyping – from parameters to information”

13:40 – 14:00

Philipp Weihs, Department of Water, Atmosphere and Environment, University of Natural Resources and Life Sciences (BOKU), AT
“Digitalization of webcam images of apricot trees for determination of phenological timing”

14:00 – 14:30

Michele Grieco, Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), DE
“Exploitation of photosynthetic diversity for the improvement of drought tolerance in cereals”

14:30 – 15:00

COFFEE BREAK and Poster Session

Scientific session 2: Chair Gernot Bodner

15:00 – 15:20

Jan F Humplík, Spichal Lab, Palacky University Olomouc, CZ
“Field plant phenotyping using UAV LiDAR system: current state and first experiences.”

15:20 – 15:50

Ittai Herrmann, The Hebrew University of Jerusalem, R.H. Smith Faculty of Agriculture, Food and Environment, IL
“Field crops phenotyping (disease, water status and yield) by spectral remote and proximal sensing”

15:50 – 16:10

COFFEE BREAK and Poster Session

16:10 – 16:40

Ethan Stewart, Gore Lab, Dep. of Plant Breeding and Genetics, Cornell University, US
“The application of a deep learning approach for quantitative disease phenotyping in UAV images”

16:40 – 17:10

Clement Atzberger, Head of Institute for Surveying, Remote Sensing and Land Information, University of Natural Resources and Life Sciences and GreenSense GmbH, AT

“Determining crop traits through multi-spectral data”

17:10 – 17:20

Closing remarks

18:00

DINNER at “Heurigen”