1st EnMAP user workshop 10/11 October 2023

online, all times in CEST (Berlin) 20.09.2023

TUE 10 Oct 2023

EnMAP mission status **Presenter**

10:00-10:05	Sebastian Fischer (DLR)	Wecome, workshop objectives and programme
10:05-10:20	Anke Schickling (DLR)	EnMAP: The German Hyperspectral Mission
10:20-10:35	Rupert Feckl (OHB Systems AG)	EnMAP: A breakthrough for Hyperspectral Earth Observation. One year in operation, seen from the manufacturer of the satellite
10:35-10:50	Emiliano Carmona (DLR)	The Ground Segment of the EnMAP mission: from tasking to product download
10:50-11:05	Sabine Chabrillat (GFZ)	Scientific exploitation preparation and support of the EnMAP satellite mission: Update and current activities
11:05-11:20	Nicole Pinnel (DLR)	The EnMAP User Inquiries and Ground Segment Operation Activities
11:20-11:35	Saskia Foerster, Arlena Brosinsky (GFZ)	HYPERedu online learning program: Concept, current status and cooperation opportunities
11:35-11:50	Benjamin Jakimow (HU Berlin)	What's new in the EnMAP-Box 3.13? Visualization and analysis of EnMAP data
11:50-12:05		*Overall session discussion*

EnMAP data processing and quality

14:00-14:15	Peter Schwind (DLR)	The EnMAP processing chain
14:15-14:30	David Marshall (DLR)	EnMAP Spectral and Radiometric Calibration
14:30-14:45	Maximilian Langheinrich (DLR)	The EnMAP Ground-Segment L2A Processor - Products and Specifics
14:45-15:00	Martin Bachmann (DLR)	Operational data quality control and instrument monitoring for the spectral, radiometric and geometric data properties within the EnMAP Ground Segment
15:00-15:15	Maximilian Brell (GFZ)	EnMAP external validation from the EnSAG/EnMAP science segment
15:15-15:30	Felix Feckler (DLR)	EnMAP L2A ARD data discovery and access via Geoservice STAC API
15:30-15:45	Daniel Scheffler (GFZ)	EnPT: An alternative pre-processing chain for hyperspectral EnMAP data
15:45-15:55		*Overall session discussion*

15:55-16:00 SHORT BREAK

Hyperspectral VNIR/SWIR missions

16:00-16:15	Luigi Ansalone (ASI)	The present and future of the PRISMA mission
16:15-16:30	Giorgio Licciardi (ASI)	PRISMA Data exploitation: the ASI-Prisma Scienza initiative
16:30-16:45	Rob Green (NASA)	EMIT Imaging Spectroscopy First Year Results and Plans for the Future
16:45-17:00	Marco Celesti (ESA)	The Copernicus hyperspectral imaging mission for the environment (CHIME): Current status
17:00-17:15	David Thompson (NASA)	NASA's Surface Biology and Geology Mission: Current Status
17:15-17:30		*Overall session discussion*

17:30-17:45	Sabine Chabrillat (GFZ), Anke Schickling (DLR)	*Wrap-up of first workshop day*

WED 11 Oct 2023

Applications: Vegetation

10:00-10:10	Stefanie Steinhauser (LMU)	Quantification and Mapping of Non-Photosynthetic Cropland Biomass Using Hyperspectral Data and Machine Learning
10:10-10:20	Tobias Hank (LMU)	Demonstrating the capabilities of the EnMAP-Box for Agricultural Applications – Examples from Northern Kazakhstan
10:20-10:30	Christina Hellmann (Uni Greifswald)	Characterizing of peatland vegetation at multiple scales – from field spectroscopy to spaceborne imaging spectroscopy
10:30-10:40	Ana-Belen Pascual-Venteo (Universitat de València)	Crop trait retrieval from EnMAP hyperspectral data using radiative transfer modeling and machine learning
10:40-10:50	Lucas Brenneis (heliopas.ai)	Crop type mapping using hyperspectral imagery and deep learning
10:50-11:00	Lander Leist (Uni Marburg)	Possibilities and Challenges of Crop-Type Classification in Western Kenya – A Spectral Feature Extraction Approach for EnMap Data

11:00-11:10	Paul Bantelmann (Uni Göttingen)	HyperGrass: Spectral imaging of grassland in arid ecosystems of Namibia
11:10-11:20	Katja Kowalski (HU Berlin)	New perspectives for monitoring non-photosynthetic vegetation in Central European grasslands with EnMAP
11:20-11:30	David Herrera (Forschungszentrum Jülich)	On the potential of 'EnMAP-like' emulated hyperspectral data cubes from Sentinel-2 multispectral satellite data - Comparison of emulated and Sentinel-2 biophysical variable maps
11:30-11:40	Peter Borrmann (UFZ)	Towards pixel-specific PROSAIL parameterization for large-scale crop trait retrieval
11:40-12:00		*Overall session discussion*

Applications: Water, snow, atmo, methods

14:00-14:10	Mariana Soppa (AWI Bremerhaven)	Assessment of EnMAP water reflectance during the first operational year
14:10-14:20	Claudia Giardino (CNR)	Hyperspectral remote sensing of aquatic ecosystems: first experiences with EnMAP and updates on PRISMA
14:20-14:30	Dagmar Müller (Brockmann Consult)	Detection of Phytoplankton optical groups based on space-born hyperspectral imaging spectroscopy
14:30-14:40	Alexander Kokhanovsky (GFZ)	The determination of snow properties using EnMAP measurements
14:40-14:50	Biagio Di Mauro (CNR)	PRISMA and EnMAP data for cryospheric applications in alpine and polar environments
14:50-15:00	Javier Roger (Universitat Politècnica de València)	Methane retrievals from EnMAP: assessment and emission show cases
15:00-15:10	Nassim Ait Ali Braham (DLR)	Self-Supervised Learning on Hyperspectral EnMAP Imagery
15:10-15:20	Manuel Reese (Uni Osnabrück)	Landscape element detection using deep learning and EnMAP data
15:20-15:45		*Overall session discussion*

15:45-16:00 BREAK

Applications: Geology, soils, land cover

16:00-16:10	Saeid Asadzadeh (GFZ)	Application of EnMAP Hyperspectral data in raw material exploration: examples from different deposits types
16:10-16:20	Ray Kokaly (USGS) - TBC	Geological mapping: first comparisons based on EnMAP, EMIT, and AVIRISc
16:20-16:30	Robert Milewski (GFZ)	Assessment of EnMAP imaing spectroscopy data for the estimation of topsoil properties
16:30-16:40	Thomas Schmid (CIEMAT)	Using EnMAP data to characterize land surface covers of icefree areas within the South Shetland Islands, Antarctica
16:40-16:50	Sandra Dotzler (Vista GmbH)	Using EnMAP data to improve services in the smart farming and renewable energies sector – a first overview
16:50-17:00	Neija Elvekjaer (HU Berlin)	Quantifying plant life-forms across fire-prone Mediterranean landscapes with EnMap
17:00-17:10	Surajit Ghosh (International Water Management Institute)	Investigating various spectral Indices from EnMAP on Land Cover Detection and classification using machine learning in a cloud environment
17:10-17:25		*Overall session discussion*

17:25-17:30	Sabine Chabrillat (GFZ), Anke Schickling (DLR)	*Wrap-up of workshop and good-bye*