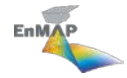


1st EnMAP User Workshop - online on 10-11 October 2023



TUE 10 Oct 2023 12' presentation + 3' questions/change to next presentation

EnMAP mission status

Chairs: Sebastian Fischer (DLR), Anke Schickling (DLR)

Times in CEST (Berlin)	Presenter / Co-authors	Presentation title
10:00-10:05	Sebastian Fischer	Welcome, workshop objectives and programme
10:05-10:20	Anke Schickling / EnMAP team	EnMAP: The German Hyperspectral Mission
10:20-10:35	Rupert Feckl	EnMAP: A breakthrough for Hyperspectral Earth Observation. One year in operation, seen from the manufacturer of the satellite
10:35-10:50	Emiliano Carmona / S. Engelbrecht, M. Habermeyer, H. Mühle, M. Pato, K. Wirth	The Ground Segment of the EnMAP mission: from tasking to product download
10:50-11:05	Nicole Pinnel / A. Schickling, L. La Porta, S. Chabrilat, S. Foerster, C. Lenzen, H. Mühle, E. Carmona, S. Fischer	The EnMAP User Inquiries and Ground Segment Operation Activities
11:05-11:20	Sabine Chabrilat / EnMAP Science Team	Scientific exploitation preparation and support of the EnMAP satellite mission: Update and current activities
11:20-11:35	Saskia Foerster, Arlena Brosinsky / K. Koch, R. Eckardt, A. Schickling	HYPERedu online learning program: Concept, current status and cooperation opportunities
11:35-11:50	Benjamin Jakimow / A. Janz, F. Thiel, P. Hostert, S. van der Linden	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

Chairs: Emiliano Carmona (DLR), Maximilian Brell (GFZ)

Times in CEST (Berlin)	Presenter / Co-authors	Presentation title
14:00-14:15	Peter Schwind / M. Pato, M. Schneider, R. de los Reyes, M. Langheinrich, M. Bachmann, B. Gerasch	The EnMAP processing chain
14:15-14:30	David Marshall Ingram / M. Pato, E. Carmona and R. de los Reyes	EnMAP Spectral and Radiometric Calibration
14:30-14:45	Maximilian Langheinrich / R. de los Reyes, M. Bachmann	The EnMAP Ground-Segment L2A Processor - Products and Specifics
14:45-15:00	Martin Bachmann / M. Schneider, B. Gerasch, S. Holzwarth, M. Habermeyer, M. Pato, E. Carmona	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 / L. Guanter, D. Scheffler, K. Segl, N. Bohn, S. Chabrilat, S. Foerster, M. Soppa, A. Bracher, M. Bachmann, R. Kokaly, C. Ong, J. Moreno, F. Gascon, R. O. Green, E. Carmona, M. Pato, A. Schickling, S. Fischer and the EnMAP validation team	EnMAP external validation from the EnSAG/EnMAP science segment
15:15-15:30	Felix Feckler	EnMAP L2A ARD data discovery and access via Geoservice STAC API
15:30-15:45	Daniel Scheffler / M. Brell, N. Bohn, L. Alvarado, M. A. Soppa, K. Segl, A. Bracher, S. Chabrilat	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

Chairs: Sabine Chabrilat (GFZ/LUH), Anke Schickling (DLR)

Times in CEST (Berlin)	Presenter / Co-authors	Presentation title
16:00-16:15	Luigi Ansalone / Francesco Longo, Ettore Lopinto, Patrizia Sacco	The present and future of the PRISMA mission
16:15-16:30	Giorgio Licciardi / M. Battagliere, M. Cianfanelli, L. D'Amato, M. Daraio, A. Montuori, R. Guarini, A. Coletta	PRISMA Data exploitation: the ASI-Prisma Scienza initiative
16:30-16:45	Robert Green / D. R. Thompson, P. Brodrick and Team	EMIT Imaging Spectroscopy First Year Results and Plans for the Future
16:45-17:00	Marco Celesti / V. Boccia, L. Despoisse, A. Gabriele, F. Gascon, C. Isola, H. Stresse, H. Weber, J. Nieke	The Copernicus hyperspectral imaging mission for the environment (CHIME): Current status
17:00-17:15	David Thompson / R. O. Green, P. G. Brodrick, and the SBG Project Team	NASA's Surface Biology and Geology Mission: Current Status
17:15-17:30		Overall session discussion
17:30-17:45	Anke Schickling	Wrap-up of first workshop day

WED 11 Oct 2023 8' presentation + 2' questions/change to next presentation

Applications: Vegetation

Chairs: Anke Schickling (DLR), Tobias Hank (LMU)

Times in CEST (Berlin)	Presenter / Co-authors	Presentation title
10:00-10:10	Stefanie Steinhauser / M. Wocher, A. Halabuk, S. Košanová, T. Hank	Quantification and Mapping of Non-Photosynthetic Cropland Biomass Using Hyperspectral Data and Machine Learning
10:10-10:20	Tobias Hank / S. Steinhauser, M. Wocher	Demonstrating the capabilities of the EnMAP-Box for Agricultural Applications – Examples from Northern Kazakhstan
10:20-10:30	Christina Hellmann / B. Bobertz, A. Lucks, A. Muthusamy, G. Neuenschwander, C. Prüfer, M. Reese, B. Waske, M. Schwieder, S. van der Linden	Characterizing of peatland vegetation at multiple scales – from field spectroscopy to spaceborne imaging spectroscopy
10:30-10:40	Ana-Belen Pascual-Ventoe / J. L. Garcia-Soria, J. Estevez, J. Vicent, K. Berger, A. Pérez-Suay, J. Verrelst	Crop trait retrieval from EnMAP hyperspectral data using radiative transfer modeling and machine learning
10:40-10:50	Lucas Brenneis	Crop type mapping using hyperspectral imagery and deep learning
10:50-11:00	Leander Leist / S. Egli, J. Bendix	Possibilities and Challenges of Crop-Type Classification in Western Kenya – A Spectral Feature Extraction Approach for EnMap Data
11:00-11:10	Paul Bantelmann / D. Wyss	HyperGrass: Spectral imaging of grassland in arid ecosystems of Namibia
11:10-11:20	Katja Kowalski / A. Okujeni, P. Hostert	New perspectives for monitoring non-photosynthetic vegetation in Central European grasslands with EnMAP
11:20-11:30	David Herrera / U. Rascher, B. Siegmann	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 / S. Preidl	Towards pixel-specific PROSAIL parameterization for large-scale crop trait retrieval
11:40-12:00		Overall session discussion

Applications: Water, snow and atmosphere

Chairs: Mariana Soppa (AWI), Claudia Giardino (CNR)

Times in CEST (Berlin)	Presenter / Co-authors	Presentation title
14:00-14:10	Mariana Soppa / A. Bracher, M. Brell, S. Chabrillat, P. Gege, S. Plattner, I. Somlai-Schweiger, T. Schroeder, V. Brando, S. Colella, M. Bresciani, C. Giardino, Q. Vanhellemont, F. Steinmetz, L. Alvarado, D. Scheffler, M. Langheinrich, E. Carmon, M. Bachmann, M. Pato, T. Storch, A. Schickling, S. Fischer	Assessment of EnMAP water reflectance during the first operational year
14:10-14:20	Claudia Giardino	Hyperspectral remote sensing of aquatic ecosystems: first experiences with EnMAP and updates on PRISMA
14:20-14:30	Dagmar Müller / J. Garcia, A. Ruescas, K. Stelzer	Detection of Phytoplankton optical groups based on space-born hyperspectral imaging spectroscopy
14:30-14:40	Alexander Kokhanovsky / M. Brell, K. Segl, G. Bianchini, C. Lanconelli, A. Lupi, B. Petkov, G. Picard, L. Arnaud, R. S. Stone, S. Chabrillat	The determination of snow properties using EnMAP measurements
14:40-14:50	Biagio Di Mauro / G. Traversa, S. Cogliati, N. Bohn, R. Garzonio, G. Tagliabue, G. Bramati, E. Cremonese, T. Julitta, L. Guanter, A. Kokhanovsky, M. Brell, C. Giardino, E. Matta, C. Panigada, M. Rossini, R. Colombo	PRISMA and EnMAP data for cryospheric applications in alpine and polar environments
14:50-15:00	Javier Roger / L. Guanter, I. Irakulis-Loitxate, A. Valverde, J. Gorroño	Methane retrievals from EnMAP: assessment and emission show cases
15:00-15:10	Nassim Ait Ali Braham / C. Albrecht, J. Mairal, J. Chanussot, X. Xiang Zhu	Self-Supervised Learning on Hyperspectral EnMAP Imagery
15:10-15:20	Manuel Reese / B. Waske	Landscape element detection using deep learning and EnMAP data
15:20-15:40		<i>Overall session discussion</i>

15:40-16:00 BREAK

Applications: Geology, soils and land cover

Chairs: Saeid Asadzadeh (GFZ), Sabine Chabrillat (GFZ/LUH)

Times in CEST (Berlin)	Presenter / Co-authors	Presentation title
16:00-16:10	Saeid Asadzadeh / S. Chabrillat	Application of EnMAP Hyperspectral data in raw material exploration: examples from different deposits types
16:10-16:20	Ray Kokaly	Geological mapping: first comparisons based on EnMAP, EMIT, and AVIRISc
16:20-16:30	Robert Milewski / S. Chabrillat, N. Tziolas, T. Schmid	Assessment of EnMAP imaging spectroscopy data for the estimation of topsoil properties
16:30-16:40	Raffaele Casa / S. Pignatti, F. Rossi, L. Marrone, K. Misbah, S. Mirzaei	Agricultural topsoil properties retrieval from EnMAP data: preliminary results from the Jolanda di Savoia test site
16:40-16:50	Thomas Schmid / C. Giménez Poblador, S. Chabrillat, R. Milewski, S. Guillaso, J. López-Martínez	Using EnMAP data to characterize land surface covers of ice free areas within the South Shetland Islands, Antarctica
16:50-17:00	Sandra Dotzler / C. Jörges, S. Migdall, H. Bach	Using EnMAP data to improve services in the smart farming and renewable energies sector – a first overview
17:00-17:10	Neija Elvekjaer / V. Dong Pham, P. Hostert, S. van der Linden, M. Clark, D. Roberts, A. Okujeni	Quantifying plant life-forms across fire-prone Mediterranean landscapes with EnMAP
17:10-17:20	Surajit Ghosh / A. Dawn	Investigating various spectral Indices from EnMAP on Land Cover Detection and classification using machine learning in a cloud environment
17:20-17:30		<i>Overall session discussion</i>
17:30-17:45	Sabine Chabrillat	<i>Wrap-up of workshop and good-bye</i>