

Conference Agenda

Session Overview

Date: Tuesday, 16/Apr/2024

8:30am - 5:00pm	Reg 1: Registration Location: ADEIT Conference center		
10:00am - 10:30am	Plenary 1: Welcome plenary session Location: ADEIT: Assembly hall Chair: Jochem Verrelst Chair: Katja Berger Dr. Klaus-Ulrich Komp - Treasurer of EARSeL		
10:30am - 11:00am	Keynote 1: Jose Moreno Location: ADEIT: Assembly hall Chair: Jochem Verrelst New Vegetation Products From Imaging Spectroscopy: Physical Meaning, Quantitative Information, Uncertainties And Validation <u>Jose Moreno</u>		
11:00am - 11:30am	Break 1-1: Coffee Break Location: ADEIT Conference center		
11:30am - 12:00pm	Keynote 2: Claudia Giardino Location: ADEIT: Assembly hall Chair: Jochem Verrelst Assessing The State of Aquatic Ecosystems With 5 Years of PRISMA Observations <u>Claudia Giardino</u>		
12:00pm - 12:30pm	Keynote 3: Sebastian van der Linden Location: ADEIT: Assembly hall Chair: Katja Berger Mapping and Monitoring Peatlands with Spaceborne Imaging Spectroscopy Data – Opportunities and Challenges <u>Sebastian van der Linden</u>		
12:30pm - 2:00pm	Lunch 1: Lunch break Location: ADEIT Conference center		
2:00pm - 3:30pm	Them.Sess. 1-1: Preparing for the Copernicus Hyperspectral Imaging Mission for the Environment (CHIME) Location: ADEIT: Assembly hall Chair: Marco Celesti Chair: Anke Schickling The Copernicus Hyperspectral Imaging Mission For The Environment (CHIME): Current Status Marco Celesti , Kevin Alonso , Valentina Boccia , Lauren Despoisse , Antonio Gabriele , Ferran Gascon , Nafiseh Ghasemi , Claudia Isola , Giuseppe Ottavianelli , Anke Schickling , Helene Strese , Heidrun Weber , Jens Nieke CHIME Level 2A and 2B: Atmospheric Correction and Higher-Level Processing Tobias Storch , Raquel de los Reyes , Peter Schwind , Maximilian Langheinrich , David Marshall Ingram , Andreas Hueni , Pieter de Vis , Nicolas Lamquin , Vincent Levasseur , Jerome Louis , Sebastien Saunier , Martin Bachmann , Jochem Verrest , Katja Berger , Stephane Guillaso , Karl Segl , Luigi Agrimano , Lucie Homolova , Kevin Alonso , Ferran Gascon , Valentina Boccia Progress in the Development of the L2B Mineral Module for the CHIME E2E Simulator (CHEES).	Them.Sess. 1-2: Advancements in field and laboratory measurements of vegetation spectra Location: ADEIT: Room 1.1-1.2 Chair: Miina Rautiainen Chair: Lucie Homolová An Innovative UAV-HSI Integration For The Validation Of Current And Upcoming Space-Borne Spectroscopy Platforms Reflectance Products Juan Pablo Arroyo Mora , Margaret Kalacska , Oliver Lucanus , Raymond J. Soffer , Maximilian Brell Spectral Invariant-Based Illumination Correction Of Shaded And Sunlit Surfaces In Close-Range Imaging Spectroscopy Data Olli Ihalainen , Theresa Sandmann , Matti Möttöus , Uwe Rascher Variability in Biochemical and Optical Traits of Coniferous and Deciduous Tree Species - Implications for Validation of Remote Sensing Products Petr Lukeš , Lucie Homolová , Zuzana Lhotáková , Eva Neuwirthová , Aarne Hovi Assessment Of Heavy Metals Contamination Of Selected Tree	Them.Sess. 1-3: Assesment of Advancing Water Quality Monitoring with Hyperspectral Satellite Imagery and Explainable Machine Learning Location: ADEIT: Room 1.4 Chair: Ana Belen Ruescas Chair: Katalin Blix First Look at Mondrian Forests for Hyperspectral Secchi Depth Estimation Sivert Bakken , Geir Johnsen , Tor Arne Johansen Advancing Phytoplankton Primary Production Modeling through Hyperspectral Neural Network-Based Uncertainty Quantification Mortimer Werther , Daniel Odermatt , Arun M. Saranathan , Nima Pahlevan , Sundarabalan V. Balasubramanian , Daniela Gurlin , Jonas Wydler , Olivier Burggraaff Machine Learning-Based Assessment of Cyanobacteria concentration with hyperspectral In-situ data: Implications and insights for Remote Sensing Applications Jorge García Jiménez , Katalin Blix , Ana B Ruescas , Julia Amorós-López , Dagmar Müller , Carole Lebretton , Kerstin Stelzer

	<p>Karl Segl, Stéphane Guillaso Guillaso, Saeid Asadzadeh, Massimo Musacchio, Ana Maria Sánchez Montero</p> <hr/> <p>Progress in the Development of the L2B Soil Module for the CHIME-E2E Simulator Stéphane Guillaso, Karl Segl, Robert Milewski, Stefano Pignatti, Raffaele Casa, Ana Maria Sánchez Montero</p> <hr/> <p>Latest Status of the Vegetation Traits Retrieval Processor and Models in the Context of Chime Mission Preparation José Luis García Soria, Miguel Morata, Jochem Verrelst, Ana Belén Pascual-Venteo, Katja Berger, Cinzia Panigada, Giulia Tagliabue, Ana María Sánchez Montero</p> <hr/> <p>How Accurately and How Frequently Must We Retrieve Snow Properties from Imaging Spectroscopy? Jeff Dozier, David Thompson, Niklas Bohn, Edward Bair</p>	<p>Species Using Imaging Spectroscopy Dominik Kopeć, Marelina Kycko, Daniel Okupny, Ryszard Borówka, Dominik Żmuda</p> <hr/> <p>Diversification Of The FAPAR: Retrieval Of Leaf Energy Dissipation Mechanisms Based On Spectral Unmixing Shari Van Wittenberghe, Eatidal Amin, Sara Pescador-Dionisio, Ana Belen Pascual, Adrian Moncholi, M^a Pilar Cendrero-Mateo, Jose Moreno</p> <hr/> <p>UAV- and Handheld- Hyperspectral Imaging for Sphagnum Discrimination and Vegetation Modelling Franziska Wolff, Pasi Korpelainen, Anette Eltner, Timo Kumpula, Sandra Lorenz</p>	<p>Phytoplankton Recognition in Modelled Hyperspectral Data Using Machine Learning and Classical Data Analysis Methods Adrienne Esmeralda Oudijk, Alvaro Flores-Romero, Jon Alvarez Justo, Oliver Kevin Hasler, Tor Arne Johansen, Morten Omholt Alver</p> <hr/> <p>Advances In Ocean Surface Modeling To Correct For Sun And Sky Glint Contributions In Imaging Spectroscopy Measurements Niklas Bohn, Philip Brodrick, John Chapman, Adam Chlus, Regina Eckert, Robert O. Green, Marcel König, Jeremy Kravitz, Kelly Luis, Jouni Susiluoto, David Thompson</p> <hr/> <p>Estimating Aquatic Plant Diversity Using Spectral Metrics from Drone Hyperspectral Imaging Paolo Villa, Andrea Berton, Rossano Bolpagni, Michele Caccia, Maria B. Castellani, Andrea Coppi, Alice Dalla Vecchia, Francesca Gallivanone, Lorenzo Lastrucci, Erika Piaser</p>
<p>3:30pm - 4:00pm</p>	<p>Break 1-2: Coffee Break Location: ADEIT Conference center</p>		
<p>4:00pm - 5:15pm</p>	<p>Them.Sess. 1-4: Imaging spectroscopy for soil applications Location: ADEIT: Assembly hall Chair: Sabine Chabrillat</p> <hr/> <p>Spaceborne Hyperspectral Time-Series For Soil Properties Mapping Kathrin J. Ward, Saskia Foerster, Sabine Chabrillat</p> <hr/> <p>Hyperspectral Remote Sensing for Soil Salinization Assessment Giacomo Lazeri, Robert Milewski, Saskia Förster, Sandro Moretti, Sabine Chabrillat</p> <hr/> <p>Using Coupled Radiative Transfer Models to Improve Soil Organic Carbon Estimation at the EO Scale Asmaa Abdelbaki, Robert Milewski, Sabine Chabrillat</p> <hr/> <p>Mapping Soil Microbiological Biodiversity Using Simulated CHIME Hyperspectral Data Andrew Skidmore, Haidi Abdullah, Andjin Siegenthaler, Yiwei Duan, Devara Adiningrat, Melody Rousseau, Alejandra Torres Rodriguez, Roshanak Darvish, Tiejun Wang, Arjen De Groot</p> <hr/> <p>Modeling of Soil Parameters in the Atacama Desert Based on the New EnMAP Sensor Christopher Loy, Robert Milewski, Jens Boy, Diana Boy, Sabine Chabrillat</p>	<p>Them.Sess. 1-5: Machine learning and emulation for imaging spectroscopy applications Location: ADEIT: Room 1.1-1.2 Chair: Jorge Vicent Servera Chair: Jouni Susiluoto</p> <hr/> <p>Multi-fidelity Gaussian Process Emulation for Atmospheric Radiative Transfer Models Jorge Vicent Servera, Luca Martino, Jochem Verrelst, Gustau Camps- Valls</p> <hr/> <p>Local Linear Emulators Accelerate Atmospheric Correction David Thompson, Regina Eckert, Philip Brodrick, U. Niklas Bohn, Nimrod Carmon, Robert O. Green</p> <hr/> <p>Probabilistic Radiative Transfer Emulation for Imaging Spectroscopy Applications with Kernel Flows Jouni Susiluoto, Amy Braverman, Philip G. Brodrick, Nimrod Carmon, Otto Lamminpaa, Houman Owhadi, Michael Turmon</p> <hr/> <p>Using Deep Learning To Generate Fractional Vegetation Cover From Multispectral Data Peter Schwind, Kevin Kühl, David Marshall Ingram, Martin Bachmann, Uta Heiden</p> <hr/> <p>Comparison of Explainable Machine Learning Methods for Marine Vegetation Mapping by Using Hyperspectral Imagery</p>	<p>Them.Sess. 1-6: Imaging Spectroscopy for climate robust agriculture Location: ADEIT: Room 1.4 Chair: Stephanie Delalieu Chair: Gabriele Candiani</p> <hr/> <p>The SPAGHYTI Project - Assessing the Nitrogen Status and Monitoring the (a)biotic Stress Levels of Winter Wheat Using Hyperspectral Satellite Imagery Louise Leclère, Yannick Curnel, Philippe Vermeulen, François Stevens, Vincent Baeten, Damien Malice, Anne-Michelle Faux, Damien Eylenbosch, Charlotte Bataille, Benjamin Van Der Verren, Nicolas Chamberland, Maxime Troiani, Pierre Defourny, Viviane Planchon</p> <hr/> <p>Hyperspectral Remote Sensing And 3D Radiative Transfer Modelling For Maize Crop Monitoring Romain Démoulin, Jean-Philippe Gastellu-Etchegorry, Xavier Briottet, Matthieu Marionneau, Zhijun Zhen, Karine Adeline, Valérie Le Dantec</p> <hr/> <p>Multi-Year And Multi-Crop Traits Estimation Through Hybrid Approach From PRISMA Hyperspectral Data Gabriele Candiani, Alberto Crema, Ramin Heidarian Dehkordi, Francesco Nutini, Cinzia Panigada, Lorenzo Parigi, Monica Pepe, Marina Ranghetti, Micol Rossini, Giulia Tagliabue, Giulio Tellina, Mirco Boschetti</p>

Assessment of EnMAP Imaging Spectroscopy Data for the Estimation of Soil Properties in Mediterranean Croplands

Robert Milewski, Sabine Chabrilat, Nikos Tziolas, Thomas Schmid

Katalin Blix, Jorge Garcia-Jimenez, Ana B. Ruescas, Julia Amorós, Galice G. Hoarau, Eli Rinde, Kasper Hancke, Martin H. Skjelvareid

5:15pm
-
6:00pm

Poster Day 1: Poster session
Location: [ADEIT: Room 0.1](#)

Towards quantification of non-photosynthetic vegetation from Copernicus Hyperspectral Imaging Mission for the Environment (CHIME_NPV)

Andrej Halabuk, Tomáš Rusňák, Svetlana Košanová

Cross Validation of Orbital Hyperspectral Sensors: A Case Study Using PRISMA, EnMAP, DESIS, and EMIT

Daniela Heller Pearlstein, Eyal Ben Dor

The Role of the Scene Generation Module (SGM) into the CHIME End-to-End Simulator (CHEES)

Carolina Tenjo, Adrian Jacinto-Guillén, Antonio Ruiz-Verdú, José Moreno

Towards Global Detection of Methane Plumes in Hyperspectral Data of EMIT with Focus for On-board Deployment

Vít Růžička, Andrew Markham

Advancing Topographic Correction in Hyperspectral Imaging: The Shape from Spectra Method

Nimrod Carmon, Alexander Berk, Niklas Bohn, David R Thompson, Philip G Brodrick, Charles Bachmann

Validation of the WORLD SOIL Organic Carbon Monitoring System in the area of Demmin, Germany: Comparison with in-situ and air and spaceborne hyperspectral imagery prediction

Asmaa Abdelbaki, Sabine Chabrilat, Robert Milewski, Kathrin Ward, Bas van Wesemael, Marmar Sabetizadeh, Asa Gholizadeh, Daniel Žižala, Nikolaos Tziolas, Nikolaos Tsakiridis, Uta Heiden, Pablo d'Angelo, Laura Poggio, Eyal Ben-dor, Adrián Sanz Díaz, Julia Yagüe Ballester

HYPERedu Online Learning Program: Concept, Implementation Status and Cooperation Opportunities

Arlena Brosinsky, Katrin Koch, Saskia Foerster, Robert Eckardt, Michael Bock

Mineral Mapping Using EnMAP Hyperspectral Data: A Comparison of Selected Machine Learning Algorithms

Anna Maria Buczyńska, Saeid Asadzadeh

Mapping Land Surface Covers of Ice-free Areas within the South Shetland Islands, Antarctica using hyperspectral imaging spectroscopy

Thomas Schmid, Robert Milewski, Sabine Chabrilat, Claudia Giménez Poblador, Stéphane Guillaso, Juan Pablo Corella, Magaly Koch, Jerónimo López-Martínez

Assessment of Atmospheric Correction Algorithms in PRISMA, DESIS, and EnMAP Images in Inland Waters

Xavier Sòria-Perpinyà, Eduardo Vicente, Bárbara Alvado, Rebeca Pérez-González, Esther Patricia Urrego, Gabriel R. Caballero, Carolina Tenjo, Antonio Ruiz-Verdú, Jesús Delegido, Juan Miguel Soria, José Moreno, Maria A. Rodrigo

Assessment Of The Influence Of Wildfires On Water Quality Of Lakes In ESA CCI Global Datasets by Deep Learning

Lorenzo Parigi, Daniela Stroppiana, Gloria Bordogna, Claudia Giardino, Monica Pinardi, Giulio Tellina, Rossana Caroni, Mariano Bresciani, Clément Albergel

Imaging Spectroscopy Of Phytoplankton Species: Investigating The Link Between Inherent Optical Properties And Illumination Conditions

Loé Maire, Alexander Damm-Reiser, Daniel Odermatt

Autonomous Hyperspectral Radiometry Systems to support monitoring of Coastal and Inland Water Quality in Belgium.

Francesca Ortenzio, Heloise Lavigne, Quinten Vanhellemont, Clemence Goyens, Kevin Ruddick

From Hyper- To Multi-spectral Databases: Training Machine Learning Models For Turbidity Estimation

Masuma Chowdhury, Ana B. Ruescas, Irene Laiz, Ignacio De La Calle

Advanced Training Material and Tools for The Next Generation of Marine Remote Sensing Experts

Ana Belen Ruescas, Hayley Evers-King, Benjamin Loveday, Juan Ignacio Gossn, Vinca Rosmorduc, Kevin Ruddick, Gary Corlett

A TIR Data-Based Service Supporting The Identification Of Heat Mitigation Measures In Cities
Anita D. Bayer, Marco Spagnoli, Dietrich Kuhn, Stephan Holsten

Airborne Hyperspectral Imaging for the Detection, Identification, and Quantification of Pollutant and Toxic Gas Emissions from Inefficient Methane Flaring
Antoine Dumont, Frédérick Marcotte, Hajera Kouser, Stephane Boubanga

Emissivity Estimation of Metal Roofs from Hyperspectral Thermal Data
Daniel Kopkáně, Jan Hanuš, Miroslav Píkl, Lucie Homolová

6:00pm - 7:00pm	Guided Tour: Tour through city center to Botanical garden
7:00pm - 9:00pm	Icebreaker Location: Botanical garden https://www.jardibotanic.org/

Date: Wednesday, 17/Apr/2024

8:00am - 5:00pm	Reg 2: Registration		
8:30am - 10:00am	<p>Them.Sess. 2-1: EnMAP's first two years in orbit- current status and recent activities I Location: ADEIT: Assembly hall Chair: Sabine Chabrilat Chair: Anke Schickling</p> <p>EnMAP: The German Hyperspectral Mission Sebastian Fischer, <u>Laura La Porta</u>, Anke Schickling, Sabine Chabrilat, Emiliano Carmona Flores, Nicole Pinnel</p> <hr/> <p>EnMAP: A breakthrough for Hyperspectral Earth Observation. Seen from the manufacturer of the satellite, 2 years after Launch Rupert Feckl, Simon Baur, Matthias Betz, Bernhard Sang</p> <hr/> <p>Two years of EnMAP Ground Segment Operations Emiliano Carmona Flores, Sabine Engelbrecht, Martin Habermeyer, Sebastian Hartung, Lukas Hoffmann, Helmut Mühle, Miguel Pato, Nicole Pinnel, Peter Schwind, Katrin Wirth</p> <hr/> <p>Status Of EnMAP Processor And Calibration Activities Miguel Pato, Kevin Alonso, Martin Bachmann, Simon Baur, Maximilian Brell, Raquel de los Reyes, Birgit Gerasch, Martin Habermeyer, Stefanie Holzwarth, Maximilian Langheinrich, David Marshall Ingram, Mathias Schneider, Peter Schwind, Helge Witt, Emiliano Carmona</p> <hr/> <p>A Brief History of the Inflight Spectral and Radiometric Performance of EnMAP David Marshall Ingram, Kevin Alonso, Martin Bachmann, Simon Baur, Birgit Gerasch, Martin Habermeyer, Stefanie Holzwarth, Maximilian Langheinrich, Miguel Pato, Raquel de los Reyes, Mathias Schneider, Peter Schwind, Helge Witt, Emiliano Carmona</p> <hr/> <p>EnMAP Product Validation: Lessons Learnd From Two Years In Orbit Maximilian Brell, Luis Guanter, Daniel Scheffler, Karl Segl, Niklas Bohn, Sabine Chabrilat, Mariana Soppa, Astrid Bracher, Martin Bachmann, Raquel De Los Reyes, Miguel Pato, Emiliano Carmona, Michael Bock, Laura La Porta, Sebastian Fischer</p>	<p>Them.Sess. 2-2: Hyperspectral imaging of chlorophyll fluorescence across scales - PART I: retrieval and modeling trends Location: ADEIT: Room 1.1-1.2 Chair: Uwe Rascher Chair: MaPilar Cendrero-Mateo</p> <p>SIF Spectrum Retrieval in The Framework Of The ESA EE-8 FLEX Mission Sergio Cogliati, Pietro Chierichetti, Jorge Vicent, Neus Sabater, Pekka Kolmonen, Gwennael Matot, Matthias Drusch, Marc Bouvet, Claudia Isola, Roberto Colombo, Josè Moreno</p> <hr/> <p>Leveraging A Large-Scale Radiative Transfer Simulation For An Emulator Based Retrieval Scheme of Sun-Induced Fluorescence in HyPlant Imagery Jim Loic Buffat, Miguel Pato, Stefan Auer, Kevin Alonso, Emiliano Carmona, Stefan Maier, Rupert Müller, Patrick Rademske, Uwe Rascher, Hanno Scharr</p> <hr/> <p>MIDNIGHTS – Monitoring Instrument Detecting NIGHT Spectra: a low-cost system for validation and calibration of SIF retrievals Troy Sehlin Magney, Christopher Wong, Logan Brissette, Devin McHugh</p> <hr/> <p>Solar-induced Chlorophyll Fluorescence Efficiency Estimated with Radiative Transfer Modelling and Airborne Diurnal Measurements in Barley Juliane Bendig, Zbynek Malenovsky, Bastian Siegmann, Julie Krämer, Uwe Rascher</p> <hr/> <p>A Novel Approach to Retrieve Canopy Evapotranspiration from Hyperspectral Reflectance and Solar-induced Fluorescence Data Bastian Siegmann, Egor Prikaziuk, Oscar Hartogensis, Mary Rose Mangan, Jim Buffat, Julie Krämer, Juan Quiros Vargas, Juliane Bendig, Patrick Rademske, Uwe Rascher, Christiaan van der Tol</p> <hr/> <p>Retrieving Sun-Induced Chlorophyll Fluorescence from water bodies using the FLEX mission Carolina Tenjo, Shari Van Wittenberghe, Antonio Ruiz-Verdú, Jesús Delegido, Jose Moreno</p> <hr/> <p>Potential Of The Fluorescence Explorer Mission For Inland And</p>	<p>Them.Sess. 2-3: Thermal Infrared (TIR) Remote Sensing Special Session Location: ADEIT: Room 1.4 Chair: Jennifer Susan Adams Chair: Elnaz Neinavaz</p> <p>Evaluation of the Daytime corrected AVHRR Land Surface Temperature Time Series Philipp Reiners, Stefanie Holzwarth, Claudia Kuenzer</p> <hr/> <p>Comparing Forest Species Emissivity Using Airborne Thermal Infrared Hyperspectral data in a Mixed Temperate Forest Hillary Korir, <u>Elnaz Neinavaz</u>, Roshanak Darvishzadeh, Andrew K. Skidmore</p> <hr/> <p>Hyperspectral Soil Property Mapping Using Thermal Infrared (LWIR) Imagery Helge L. C. Daempfling, Robert Milewski, Sabine Chabrilat</p> <hr/> <p>A Comparative Analysis Of Airborne Hyperspectral And Thermal Infrared Data In The Assessment Of Peatland Drying: A Case Study Of Tuchola Forest, Poland Martyna Wietecha, Dominik Kopeć, Justyna Wylazłowska, Agata Zakrzewska, Jan Niedzielko, Maciej Gąbka, Mariusz Lamentowicz, Stanisław Rosadziński, Stefan Konczal</p> <hr/> <p>A Novel Method To Derive Land Surface Temperature And Spectral Emissivity From Airborne Hyperspectral Thermal Infrared Image Data T. Hu, <u>M. Schlerf</u>, F. Ronellenfitsch, D. Skokovic, R. Llorens, C. Corbari, J. Sobrino, M. Mancini, L. Hoffmann, K. Mallick</p>

<p>10:00am - 10:30am</p>	<p>Break Day 2-1: Coffee Break Location: ADEIT Conference center</p>	
<p>10:30am - 12:00pm</p>	<p>Them.Sess. 2-4: EnMAP's first two years in orbit- current status and recent activities II Location: ADEIT: Assembly hall Chair: Nicole Pinnel Chair: Saskia Foerster</p>	<p>Them.Sess. 2-5: Hyperspectral imaging of chlorophyll fluorescence across scales - PART II: sampling strategies and interpretation Location: ADEIT: Room 1.1-1.2 Chair: Shari Van Wittenberghe Chair: Bastian Siegmann</p>
	<p>EnMAP Mission After 2 Years in Orbit: Advances from the Scientific Exploitation Program Sabine Chabrillat, Maximilian Brell, Karl Segl, Saskia Foerster, Robert Milewski, Saeid Asadzadeh, Kathrin Ward, Daniel Scheffler, Alexander Kokhanovsky, Stephane Guillaso, Arlena Brosinsky, Katrin Koch, Tobias Hank, Astrid Bracher, Mariana Soppa, Anke Schickling, Michael Bock</p>	<p>Measuring Plant Fluorescence across Scales to Understand the Dynamics of Photosynthesis and Stress Resilience – Steps towards the Development of Novel Vegetation Products Uwe Rascher, Juliane Bendig, Jim Buffat, Antony Castro, Sofia Choza Farias, David Herrera, Ireneus Kleppert, Deepthi Konche, Caspar Kneer, Oliver Knopf, Julie Krämer, Vera Krieger, Onno Muller, Huaiyue Peng, Juan Quiros-Vargas, Saja Salattna, Theresa Sandmann, Bastian Siegmann</p>
	<p>Towards Informed Default-Parametrizations of Machine-Learning Algorithms for Biophysical Variable Retrieval in the EnMAP-Box Tobias Hank, Stefanie Steinhauser, Aaron Banze, Matthias Woher</p>	<p>Waking Before the Snow Melts: Seasonal Timing of Fluorescence and Photosynthetic Yields at Needle and Canopy Scales in Evergreen Needleleaf Forests Zoe Amie Pierrat, Troy Sehlin Magney, Andrew Maguire, Logan Brissette, Russell Doughty, David R. Bowling, Barry Logan, Nicholas Parazoo, Jochen Stutz</p>
	<p>Towards a Universal Approach for Retrieval of Non-photosynthetic Vegetation Across Ecosystems from EnMAP Time Series Akpona Okujeni, Katja Kowalski, Neija Elvekjaer, Patrick Hostert</p>	<p>New approaches for environmental sensing using a UAV-based Active Laser Fluorescence Imaging System Lammert Kooistra, Hasib Mustafa, Chenglong Zhang, Harm Bartholomeus</p>
	<p>Enmap Hyperspectral Data For Mineral Exploration: Case Studies And Application Examples Saeid Asadzadeh, Sabine Chabrillat</p>	<p>Top of Canopy Fluorescence Quantum Efficiency from Hyperspectral Point-radiometer Systems Adrian Moncholi-Estornell, Maria Pilar Cendrero-Mateo, José Moreno, Shari Van Wittenberghe</p>
	<p>Advantages Of EnMAP Time Series For Plant Life-form Mapping And Fuel Type Characterization In Fire-prone Mediterranean Ecosystems Neija Elvekjaer, Dong Pham, Sebastian van der Linden, Patrick Hostert, Andreas Janz, Akpona Okujeni</p>	<p>Defining The Spatial Heterogeneity Of FLEX Sun-Induced Chlorophyll Fluorescence From Hyperspectral HyPlant And Multispectral Sentinel-2 Data Nela Jantol, Egor Prikaziuk, Marco Celesti, Itza Hernandez-Sequeira, Enrico Tomelleri, Javier Pacheco-Labrador, Shari Van Wittenberghe, Filliberto Pla, Subhajit Bandopadhyay, Gerbrand Koren, Bastian Siegmann, Tarzan Legović, Hrvoje Kutnjak, M.Pilar Cendrero-Mateo</p>
	<p>EnsAD: EnMAP Satellite-based Algae Detection for Copernicus and Downstream Services Dagmar Müller, Shun Bi, Rüdiger Röttgers, Martin Hieronymi, Jorge García, Katalin Blix, Ana Ruescas, Julia Amorós, Kerstin Stelzer, Carsten Brockmann, Eefke van der Lee, Annika Grage, Karin Heyer, Johannes Timm</p>	<p>Tracing Changes in Subsurface Water Storage Through a Novel</p>

		<p>Satellite-Based Time-Series of Far-Red Solar-Induced Fluorescence Emission Efficiency</p> <p><u>David Herrera</u>, Uwe Rascher, Alexandre Belleflamme, Bastian Siegmann</p>	
12:00pm - 1:00pm	<p>Plenary 2: Panel discussion Location: ADEIT: Assembly hall Chair: Marco Celesti</p>	<p>Sponsors: Technical talks Location: ADEIT: Room 1.1-1.2 Francesco Beccari (Headwall), Dr. Daniel Schläpfer (ReSe Applications), Trond Løke (Hypspec, NEO)</p>	
1:00pm - 2:00pm	<p>Lunch 2: Lunch break Location: ADEIT Conference center</p>		
2:00pm - 3:30pm	<p>Them.Sess. 2-7: Status and applications of the PRISMA mission at the turn of 5 years in orbit Location: ADEIT: Assembly hall Chair: Ettore Lopinto Chair: Patrizia Sacco Introduction "Status of the PRISMA mission at the turn of 5 years in orbit" (Ettore Lopinto, Patrizia Sacco, ASI)</p> <p>Hyperspectral Applications and innovation: the "PRISMA SCIENZA" ASI Program Fostering the National Downstream Sector <u>Patrizia Sacco</u>, Giorgio Licciardi, Maria Girolamo Daraio, Maria Elena Cianfanelli, Maria Libera Battagliere, Rocchina Guarini, Luigi D'Amato, Antonio Montuori, Alessandro Coletta</p> <p>The Characterization Of Phosphate Waste Rock Piles Using PRISMA Hyperspectral Images <u>Abdelhak El Mansour</u>, Ahmed Laamrani, Abdellatif El Ghali, Rachid Hakkou, Mostafa Benzaazoua</p> <p>Estimation of Photosynthetic and Non-photosynthetic Vegetation Structural Traits in Mediterranean Tree-grass Ecosystem Using in Situ and PRISMA Satellite Hyperspectral Data <u>María Dolores Raya-Sereno</u>, María Pilar Martín, Rosario Gonzalez-Cascon, Vicente Burchard-Levine, Daniel Pfitzer, Lucía Casillas, David Riaño, Javier Pacheco, Héctor Nieto</p> <p>Exploitation Of The Prisma Hyperspectral Payload For Vegetation, Fuel And Burn Scar Mapping Renato Aurigemma, Carlo De Michele, Fabrizio Ferrucci, Valerio Pisacane, Salvatore Schiano lo Moriello, Barbara Hirn, Salvatore Falanga Bolognesi, <u>Fabiana Ravellino</u></p> <p>Developing Algorithms for Estimating Functional Traits and Biodiversity Indices from PRISMA Imagery <u>Micol Rossini</u>, Giulia Tagliabue, Rodolfo Gentili, Beatrice Savinelli, Luigi Vignali, Jiawei Gao, Valentina Picchi, Antonella Calzone, Roberto Colombo, Cinzia Panigada</p>	<p>Them.Sess. 2-8: Results from the EMIT imaging spectroscopy mission on the International Space Station Location: ADEIT: Room 1.1-1.2 Chair: Robert Green Chair: K. Dana Chadwick</p> <p>First Year of Observations and Key Results from NASA's EMIT Imaging Spectroscopy Mission <u>Robert Green</u>, David Thompson</p> <p>On-orbit Calibration and Performance of NASA's EMIT Imaging Spectrometer David R. Thompson, Robert O. Green, Philip Brodrick, K. Dana Chadwick, Red Willow Coleman, <u>Regina Eckert</u>, Andrew K. Thorpe</p> <p>Evaluating The Accuracy Of Surface Reflectance Products From The EMIT Imaging Spectrometer <u>Red Willow Coleman</u>, David R. Thompson, Philip G. Brodrick, Francisco Ochoa, Gregory S. Okin, Raymond Kokaly, Gregg Swayze, Todd Hoefen, John M. Meyer, Evan Cox, Eyal Ben Dor, Daniela Heller Pearlshien, Robert O. Green</p> <p>Mapping Snow Properties On A Global Scale - A First Outlook To The SBG/CHIME Era Using Observations From The EMIT Imaging Spectrometer <u>Niklas Bohn</u>, Edward Bair, Philip Brodrick, Nimrod Carmon, Jeff Dozier, Robert O. Green, Thomas Painter, David Thompson</p> <p>EMIT Applications and Data Accessibility <u>K. Dana Chadwick</u>, Robert O. Green, David R. Thompson, Philip G. Brodrick, Kelly Luis, Niklas Bohn, Michael Bramble, Andrew Thorpe, Erik Bolch, Brianna Lind, Mahsa Jami, Aaron Friesz, Cole Krehbiel</p> <p>Global Mineral Products From EMIT: From Radiance To Earth System Model <u>Philip G. Brodrick</u>, Robert O. Green, David R. Thompson</p>	<p>Them.Sess. 2-9: Discovering the world's aquatic ecosystems through spaceborne spectroscopy: status and prospects Location: ADEIT: Room 1.4 Chair: Nima Pahlevan Chair: Astrid Bracher</p> <p>GALENE: A Future Hyperspectral Satellite Mission For Observing Coastal And Inland Aquatic Ecosystems And Wetlands <u>Malik Chamj</u>, Astrid Bracher, Xavier Briottet, Maycira Costa, Alexander Damm-Reiser, Arnold Dekker, Peter Gege, Shungu Garaba, Claudia Giardino, Els Knaeps, Tiit Kutser, Richard Lucas, Daniel Odermatt, Gerard Otter, Nima Pahlevan, Nicole Pinnel, Sindy Sterckx, Kevin Turpie</p> <p>A Perspective On The Relevance Of The CHIME Mission For Monitoring Inland And Coastal Waters <u>Marco Celesti</u>, Kevin Alonso, Valentina Boccia, Laurent Despoisse, Alice Fabbretto, Diego Fernandez-Prieto, Antonio Gabriele, Ferran Gascon, Nafiseh Ghasemi, Claudia Giardino, Giuseppe Ottavianelli, Andrea Pellegrino, Helene Strese, Heidrun Weber, Jens Nieke</p> <p>Hyperspectral EnMAP Data Processing For Aquatic Science And Applications <u>Nicole Pinnel</u>, Maximilian Langheinrich, Thomas Heege, Mariana Althenburg Soppa, Peter Gege, Raquel de los Reyes, Astrid Bracher, Emiliano Carmona</p> <p>Aquatic observations by the EMIT imaging spectrometer onboard the International Space Station <u>Kelly Luis</u>, David R. Thompson, Robert O. Green, Philip Brodrick, U. Niklas Bohn, K. Dana Chadwick, Regina Eckert</p> <p>NASA's Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission: Ushering a new era in ocean colour measurements <u>Antonio Mannino</u>, Jeremy Werdell, Nasa PACE Project</p>

<p>3:30pm - 4:00pm</p>	<p>Break 2-2: Coffee Break Location: ADEIT Conference center</p>		
<p>4:00pm - 5:15pm</p>	<p>Them.Sess. 2-10: Hyperspectral Remote Sensing of Forest Traits I Location: ADEIT: Assembly hall Chair: Martin Schlerf Chair: Andrew Kerr Skidmore</p> <p>Influence Of Surface Anisotropy On Trait-based Functional Diversity Metrics Marius Vöggtli, Isabelle S. Helfenstein, Meredith C. Schuman, Michael E. Schaepman, Mathias Kneubühler, Alexander Damm</p> <hr/> <p>Exploring The Spectral Variation Hypothesis For α-And β-Diversity: A Comparison Of Open Vegetation And Forests Christine I. B. Wallis, Anna L. Crofts, Mark Vellend</p> <hr/> <p>Upscaling Drought Disturbance Monitoring in the Amazon Forests by Combining Terrestrial Laser Scanning and Field Spectroscopy Wouter A. J. Van den Broeck, Zane T. Cooper, Wout Cherlet, Patrick Meir, Antonio Carlos Lola da Costa, Kim Calders</p> <hr/> <p>Challenges Of Hyperspectral High-Throughput Phenotyping For Drought Tolerance In Conifer Seedlings Eva Neuwirthová, Jaroslav Čepl, Jiří Chuchlík, Zuzana Lhotáková, Jan Stejskal, Miroslav Píkl, Daniel Provazník, Jana Albrechtová, Milan Lstibůrek</p>	<p>Them.Sess. 2-11: Technical discussions on imaging spectroscopy Location: ADEIT: Room 1.1-1.2 Chair: Stefan Livens Chair: Sivert Bakken</p> <p>Hyperspectral Point Cloud based Geometric and Atmospheric Processing in Complex Terrain Daniel Schläpfer, Simon Alexander Trim</p> <hr/> <p>A Small Hyperspectral Satellite Mission Targeting Big Image Quality Stefan Livens, Dirk Nuyts</p> <hr/> <p>Not as Dirty as They Look: Flawed Spectral Measurements of Bright Surfaces Edward Bair, Dar Roberts, David Thompson, Brenton Wilder, Niklas Bohn, Miguel Roman, Christopher Crawford, Jeff Dozier</p> <hr/> <p>Creating Temporal Hyperspectral Regional Endmember Bundles (THREBs): Automatic Imaged Based EM Extraction And Library Reduction To Derive Regional Fractional Vegetation Cover Kevin Kühn, David Marshall Ingram, Uta Heiden, Martin Bachmann</p> <hr/> <p>What's New in the EnMAP-Box? Visualization and Analysis of EnMAP Data for Everyone. Benjamin Jakimow, Andreas Janz, Fabian Thiel, Leon-Friedrich Thomas, Patrick Hostert, Sebastian van der Linden</p>	<p>Them.Sess. 2-6: Advances in DESIS data products and applications Location: ADEIT: Room 1.4 Chair: Nicole Pinnel Chair: Raquel de los Reyes</p> <p>Identifying and Handling of Errors Caused by Spectral Ambiguities over Water Peter Gege, Milad Niroumand-Jadidi</p> <hr/> <p>Hyperspectral Imaging of the Earth with the DESIS instrument Emiliano Carmona Flores, Martin Bachmann, Cerra Daniele, Raquel de los Reyes, Daniele Dietrich, Uta Heiden, Uwe Knodt, David Krutz, Heath Lester, Rupert Müller, Mirco Tegler</p> <hr/> <p>Temporal Soil Composites from the EnMAP and DESIS hyperspectral image archive Paul Karlshoefer, Kevin Kuehl, David Marshall, Martin Bachmann, Uta Heiden</p> <hr/> <p>Towards A Machine Learning Retrieval Of Solar-induced Fluorescence From DESIS Data Miguel Pato, Jim Buffat, Kevin Alonso, Stefan Auer, Emiliano Carmona, Stefan Maier, Rupert Müller, Patrick Rademski, Uwe Rascher, Hanno Scharr</p>
<p>5:15pm - 6:00pm</p>	<p>Poster Day 2: Poster session Location: ADEIT: Room 0.1</p> <p>PRISMA-Learn Project - Advanced Machine Learning Techniques for Data Fusion and Analysis of Images from the PRISMA Mission Luca Bergamasco, Francesca Bovolo, Lorenzo Bruzzone, Jia Chen, Fabio Dell'Acqua, Paolo Gamba, Ignacio Masari, Gabriele Moser, Martina Pastorino, Sebastiano B. Serpico, Abhishek Singh, Giulio Weikmann</p> <hr/> <p>Integrating Spaceborne Hyperspectral Data Interpretation Into Mineral Mapping Workflows Alice Burrell, Olivia Rhind, Alfred Baines, Richard Chiles, Mark Broadley</p> <hr/> <p>Above And Beyond: UAV-borne Hyperspectral Mapping Approaches At a Legacy Mine and Tailings Site Within The M4Mining Project Friederike M. Koerting, Justus Constantin Hildebrand, Ekaterina Savinova, Steven Micklethwaite, Peter D. Erskine, David Lindblom, Matthew Greenwood, Dominic Brown</p> <hr/> <p>Impact of Surface Humidity on the Spectral Signature of Industrial and Mining Minerals – Implications for their Detection by Hyperspectral Imaging Erica Uccellatori, Stéphane Jacquemoud, Rodolphe Marion</p>		

Spatial And Spectral Analysis Of Fairy Circles In Namibia On Landscape Scale Using Satellite Image Processing And Machine Learning Analysis

Klil Noy, Micha Silver, Ondrej Pesek, Hezi Yetzhak, Eugene Marais, Arnon Karnieli

Advancements In Near-infrared Reflectance Measurements Of Small Leaves And Pine Needles

Nicolas Venjean

Characterization Of Multi-Angular Response Of Vegetated Surfaces In The Optical Domain And Use of BRDF Models

Pietro Chierichetti, Sergio Cogliati, Dirk Schuettemeyer, Jan Hanuš, Marco Celesti, Cinzia Panigada, Micol Rossini, Giulia Tagliabue, Luigi Vignali, Roberto Colombo

Hyperspectral Leaf Spectroscopy Reveals the Response of Beech (*Fagus sylvatica*) Seedlings From Across the Species' Range to Simulated Drought

Dave Kurath, Jolanda Klaver, Tis Voortman, Meredith Christine Schuman, Sofia Julia van Moorsel

Linking Tower Remote Sensing with Ecosystem Fluxes - Opportunities, Challenges, and Recommendations for a Path Forward

Zoe Amie Pierrat, Troy Sehlin Magney, Loren Albert, Xi Yang, Anam Khan, Benjamin Runkle, Mallory Barnes, Matthew P Dannenberg, John Gamon, Miriam Johnston, Tommaso Julitta, Charles Southwick, Christopher Still, William Woodgate

Modeling Forest Canopy Spectral Transmittance Using Photon Recollision Probability

Aarne Hovi, Růžena Janoutová

Spectral Properties of Vegetation in Northern Peatlands

Sini-Selina Salko, Aarne Hovi, Iuliia Burdun, Jussi Juola, Miina Rautiainen

Remotely Sensing Intraspecific Variation in European Beech (*Fagus sylvatica*) and Its Relation to Drought

Julia S Joswig, Meredith C Schuman, Anna K Schweiger, Hannes Feilhauer

Mapping Forest Canopy Water Content Using Hyperspectral Imagery

Laura Recuero Pavón, Margarita Huesca, Roshanak Darvishzadeh, Andrew K. Skidmore, Tawanda W. Gara

Dealing With Variability In Vegetation Functional Trait Retrievals: Case Study Of Floodplain Forests In Lanžhot, Czech Republic

Adenan Yandra Nofrizal, Lucie Kupková, Petr Lukeš, Marian Švik, Lucie Červená, Zuzana Lhotáková, Eva Neuwirthová, Jana Albrechtová

Identification of a Biodiversity Indicator Species in the Hyperspectral Signature of Boreal Forests

Eelis Halme, Olli Ihalainen, Matti Möttöus

The PANDA-WATER Project: PRISMA Products And Applications For Inland And Coastal WATER

Federica Braga, Mariano Bresciani, Alessia Tricomi, Vittorio Ernesto Brando, Alice Fabbretto, Claudia Giardino, Paolo Villa, Andrea Pellegrino, Salvatore Mangano, Gian Marco Scarpa, Maria Laura Zoffoli, Giorgia Manfè, Marco Bellacicco, Jaime Pitarch Portero, Federico Falcini, Luis Gonzalez Vilas, Roberta Bruno, Maria Libera Battagliere, Giorgio Licciardi, Maria Girolamo Daraio

Chlorophyll-b Detection Over Concentrated Harmful Algal Blooms Using Hyperspectral PRISMA Imagery

Maria Laura Zoffoli, Pierre Gernez, Michael Retho, Soazig Manach, Schapira Mathilde, Federica Braga

PRISMA Prototype Algorithms For Estimating Environmental Damage and Vulnerability to Land Degradation: the SAPP4VU Project

Stefano Pignatti, Maria Francesca Carfora, Rosa Coluzzi, Italia De Feis, Vito Imbrenda, Giovanni Laneve, Maria Lanfredi, Saham Mirzaei, Angelo Palombo, Simone Pascucci, Francesco Rossi, Federico Santini, Tiziana Simoniello, Vanguri Rajesh

Quantify Non-Photosynthetic Vegetation (NPV) fraction in the Kenyan Grasslands through Unmixing Hyperspectral Remote Sensing Data

Rodolfo Ceriani, Francesco Fava, Katayoun Fakherifard, Giulia Tagliabue, Micol Rossini, Sonja Leitner, Cinzia Panigada, Vincent Odongo, Valentina Vaglia, Paul Mutuo, Kelvin Kinuthia, Monica Pepe

Explorative Analysis for Assessing Wheat Yield and Grain Protein Content with Machine Learning and PRISMA Hyperspectral Data

Marina Ranghetti, Mirco Boschetti, Francesco Nutini, Micol Rossini, Gabriele Candiani

Early- Season Crop Mapping Using PRISMA image and Machine and Deep Learning Techniques

Saham Mirzaei, Stefano Pignatti, Maria Francesca Carfora, Francesco Rossi, Simone Pascucci, Federico Santini, Angelo Palombo

Radiometric Evaluation Of The Updated Version Of The Hyperspectral PRISMA Products

Andrea Pellegrino, Alice Fabbretto, Mariano Bresciani, Federica Braga, Vittorio Ernesto Brando, Salvatore Mangano, Claudia Giardino

Assessing Prisma Imagery For Soil Organic Matter Prediction In A Complex Forested Area: An Ensemble Machine Learning Approach

Francisco M. Canero, Victor Rodriguez-Galiano

Characterization of Spectral Response Function of High-Resolution Chlorophyll Fluorescence Spectrometer Using the Slanted-Edge Method

Óscar Gutiérrez de la Cámara Ara, Félix Muñoz Sánchez, Jorge Alonso Pardo, Marcos Jimenez Michavila, Tomas Belenguer Davila

Non-Linear Research Directions To Address The Spatial Scaling Issue Of Solar-Induced Chlorophyll Fluorescence (SIF) Imagery

Juan Jose Quiros, Gregory Duveiller, Bastian Sigmann, Uwe Rascher

Uncertainty assessment in Sun-Induced Chlorophyll Fluorescence retrieval for FLEX Calibration and Validation campaigns

Juanjo Peon, Marcos Jimenez Michavila, M^a Pilar Cendrero-Mateo, Adrián Moncholí, Javier Gorroño, Shari Van Wittenberghe, Jose Moreno

End-To-End Simulations to Optimize Hyperspectral Mission Requirements For 7 Scientific Applications

Xavier Briottet, Karine Adeline, Touria Bajjouk, Véronique Carrère, Malik Chami, Yevgeni Derimian, Marie Dumont, Stéphanie Doz, Sophie Fabre, Pierre-Yves Foucher, Hervé Herbin, Stéphane Jacquemoud, Marc Lang, Arnaud Le Bris, Sophie Loyer, Rodolphe Marion, Audrey Minghelli, David Sheeren, Benjamin Szymanski, Camille Desjardins, Damien Rodat

Agricultural Soil Properties Mapping From PRISMA And EnMap Data: Exploiting Multitemporal Bare Soil Approaches.

Francesco Rossi, Luca Marrone, Khalil Misbah, Saham Mirzaei, Alessia Tricomi, Raffaele Casa, Stefano Pignatti, Giovanni Laneve

8:30pm

-

11:30pm

Conference Dinner

Location: **Restaurant ONLY YOU**

<https://www.onlyyouhotels.com/en/hotels/only-you-hotel-valencia/gastro-spaces/el-mirador/>

Date: Thursday, 18/Apr/2024

<p>8:00am - 10:00am</p>	<p>Reg 3: Registration</p>		
<p>8:30am - 10:00am</p>	<p>Them.Sess. 3-1: Hyperspectral Remote Sensing of Forest Traits II Location: ADEIT: Assembly hall Chair: Roshanak Darvishzadeh Chair: Martin Schlerf</p> <p>Leaf Spectroscopy of Defence Traits in Temperate Forests Rui Xie, Roshanak Darvishzadeh, Andrew Skidmore, Freek Van der Meer</p> <hr/> <p>Mapping Phyllospere and Soil Fungal Function Using AVIRIS-NG Hyperspectral Data Andjin Siegenthaler, Haidi Abdullah, Andrew K Skidmore, Yiwei Duan, Mélody Rousseau</p> <hr/> <p>Retrieving Leaf Lignocellulose of Conifer Species Using PROSPECT-PRO Model Alejandra Torres Rodriguez, Roshanak Darvishzadeh, Andrew K. Skidmore, Tiejun Wang</p> <hr/> <p>Quantifying Canopy Nitrogen Content in a Soil-Acidified Temperate Forest Using Image Spectroscopy Haidi Abdullah, Andrew Skidmore, Andjin Siegenthaler, Roshanak Darvishzadeh, Elnaz Neinavaz, Alejandra Torres Rodriguez, Yiwei Duan</p> <hr/> <p>Mapping Leaf Pigment Contents of a Tall Eucalyptus Forest from Drone Imaging Spectroscopy Data Using the DART Model and Machine Learning Zbyněk Malenovský, Krishna Lamsal, Růžena Janoutová, Timothy Devereux, William Woodgate, Leonard Hambrecht, Emiliano Cimoli, Arko Lucieer, Lucie Homolová, Omar Regaieg, Yingjie Wang, Jean-Philippe Gastellu-Etchegorry</p> <hr/> <p>Plant Trait Estimation in a Forest Ecosystem from Hyperspectral Satellites through Machine Learning and Hybrid Approaches Cinzia Panigada, Jochem Verrelst, Giulia Tagliabue, Jose Luis Garcia Soria, Gabriele Candiani, Boschetti Mirco, Miguel Morata Dolz, Rodolfo Gentili, Beatrice Savinelli, Luigi Vignali, Luca Gallia, Valentina Picchi, Antonella Calzone, Roberto Colombo, Micol Rossini</p>	<p>Them.Sess. 3-2: Exploring the synergies between imaging spectrometer missions and between multispectral data and imaging spectrometer data for advancing applications Location: ADEIT: Room 1.1-1.2 Chair: Akpona Okujeni Chair: Mike Werfeli</p> <p>Synergetic Use Of Multispectral And Hyperspectral Imagery Data For Inland Water Applications Alice Fabbretto, Andrea Pellegrino, Mariano Bresciani, Claudia Giardino, Federica Braga, Krista Alikas, Nicola Ghirardi, Diana Vaičiūtė</p> <hr/> <p>CHIME Hypersense Campaign Data Harmonisation and Quality Assessment via Uncertainty Analysis Mike Werfeli, Daria Larcher, Andreas Hueni, Kimberly Mason, Cinzia Panigada, Giulia Tagliabue, Raquel De Los Reyes, Jens Nieke, Michael Rast, Marco Celesti</p> <hr/> <p>Fusion of Airborne Remote Sensing Data for Description of Thermal Heat Island Daniel Kopkáně, Jan Novotný, Jan Hanuš, Lucie Homolová, Frantisek Zemek</p> <hr/> <p>Towards consistent EnMAP, Landsat, and Sentinel-2 Analysis Ready Data cubes for multisensor monitoring applications Akpona Okujeni, Andreas Janz, Neija Elvekjaer, Katja Kowalski, Benjamin Jakimow, Sebastian van der Linden, Patrick Hostert</p> <hr/> <p>Mapping The Colors Of Flowering Phenology With Imaging Spectroscopy Yoseline Angel, Dhruva Kathuria, Evan Lang, K. Dana Chadwick, Philip G. Brodrick, Alexey Shiklomanov</p> <hr/> <p>Species-Level Fractional Savannah Woody Vegetation Mapping with Drone and EnMap Hyperspectral Data Christina Karakizi, Akpona Okujeni, Vasileios Tsironis, Athina Psalta, Konstantinos Karantzalos, Patrick Hostert, Elias Symeonakis</p>	<p>Them.Sess. 3-3: Imaging spectroscopy for diverse ecosystem applications Location: ADEIT: Room 1.4 Chair: Philip Andrew Townsend</p> <p>Urban Tree Species Mapping – Development and Application of the Method Using Hyperspectral and LiDAR Data Fusion Jan Niedzielko, Dominik Kopeć, Justyna Wylazłowska, Jakub Charyton, Dominik Żmuda</p> <hr/> <p>Application Hyperspectral Data To Assess The Condition And Identification Of High Mountain Vegetation Along The Trails Marlena Kycko, Bogdan Zagajewski, Tomasz Zwijacz-Kozica, Marcin Kluczek</p> <hr/> <p>Biodiversity from Imaging Spectroscopy in Contrasting Tundra and Fynbos Biomes Philip A Townsend, Kyle R Kovach, Henry A Frye, Ting Zheng, Ryan P Pavlick, Fabian D Schneider, John A Silander, Jeannine Cavender-Bares, Simcelile Chenge, Jasper A Slingsby</p> <hr/> <p>Advancing The Monitoring Of Species Composition And Biomass In Grasslands Through Hyperspectral Satellites Christine I. B. Wallis, Ann-Kathrin Holtgrave, Michael Förster, Birgit Kleinschmit</p> <hr/> <p>Biodiversity Survey Of The Cape: A Nasa Campaign to Understand Earth's Biodiversity Through the Lens of Spectroscopy Philip G. Brodrick, Anabelle Cardoso, Adam Wilson, Erin Hestir, Jasper Slingsby, Cherie Forbes</p> <hr/> <p>Ordination Analysis with Multitemporal EnMAP Data To Map Patterns of Species Composition in Peatland Vegetation Christina Hellmann, Bernd Bobertz, Hannes Feilhauer, Manuel Reese, Marcel Schwieder, Björn Waske, Sebastian van der Linden</p>
<p>10:00am - 10:30am</p>	<p>Break 3-1: Coffee Break Location: ADEIT Conference center</p>		
<p>10:30am - 12:00pm</p>	<p>YSc: Young Scientist Awards Location: ADEIT: Assembly hall Chair: Katja Berger Chair: Jochem Verrelst</p>	<p>Them.Sess. 3-4: Validation of L2A products: content and format for a global joint effort to validate atmospheric correction products Location: ADEIT: Room 1.1-1.2</p>	<p>Neo: Practical session on UAS-based hyperspectral geology for mining Location: ADEIT: Room 1.4</p>

Quantification And Mapping Of Non-Photosynthetic Cropland Biomass Using Hyperspectral Data And Machine Learning

Stefanie Steinhauser, Matthias Woher, Andrej Halabuk, Svetlana Košánová, Tobias Hank

Determining Tree Diversity Indicators In Tropical Dry Forests Using Orbital Hyperspectral Sensors

Patrick B. O'Brien, Arturo Sanchez-Azofeifa

On the Potential of Principal Component Analysis for the Reconstruction of the Full SIF Signal to Emulate SIF Satellite Data

Miguel Morata Dolz, Bastian Siegmann, Juan Pablo Rivera-Caicedo, Jochem Verrelst

Detecting Methane Emissions From Palm Oil Mills Using Spaceborne Imaging Spectrometers

Adriana Valverde, Itziar Irakulis-Loitxate, Javier Roger, Javier Gorroño, Luis Guanter

Early-stress Detection in Tomato: Combining Fluorescence and NPQ-related Absorption Mechanisms

Sara Pescador-Dionisio, M^a Pilar Cendrero-Mateo, Sergio G Nebauer, Carolina Rausell, Adrián Moncholí-Estornell, Aida Robles-Fort, Dani Gil-Villar, M^a Dolores Real, Begoña Renau-Morata, Rosa Victoria Molina, Inmaculada Garcia-Robles, Shari Van Wittenberghe

Temporal And Spatial Retrieval Of Solar-Induced Fluorescence Quantum Efficiency From In-situ And Airborne Observations With DART Modelling

Omar Regaieg, Zbyněk Malenovský, Bastian Siegmann, Julie Krämer, Juan Quiros Vargas, Nicolas Lauret, Yingjie Wang, Valérie Le Dantec, Jean-Philippe Gastellu-Etchegorry

Chair: Raquel de los Reyes
Chair: Andreas Hueni

Measurements and Simulations of Irradiance Fields

Andreas Hueni, Helena Kuehnle

Uncertainties in Field Spectroscopy Measurements: Impact of Different Distances of the Fibre Optic Tip of a Field Spectroradiometer to the Reference Panel on Reflectance Factors

Carmen Meiller, Andreas Hueni, Reinhard Furrer, Bernhard Schmid, Maria Joao Santos

Developing An Strategy To Transfer TRUTHS Radiometric Accuracy To Surface Reflectance Measurements

Javier Gorroño, Luis Guanter, Montserrat Piñol, Nigel Fox, Thorsten Fehr

Validation of EnMAP Level-2A bottom-of-atmosphere reflectance produced with the EnMAP Processing Tool (EnPT)

Daniel Scheffler, Maximilian Brell, Mariana A. Soppa, Leonardo Alvarado, Astrid Bracher, Karl Segl, Sabine Chabrillat

Next-Generation Imaging Spectroscopy Calibration Methods for SBG-VSWIR

Regina Eckert, David Thompson, Diana Blaney, Carl Bruce, Lori Moore, Byron Van Gorp, Zachary Small, Peter Sullivan, Hong Tang, Robert Green

Evaluating the EnMAP L2A Normalized Water Leaving Reflectance Product over Two Years of Mission

Mariana A. Soppa, Maximilian Brell, Sabine Chabrillat, Leonardo Alvarado, Peter Gege, Stefan Plattner, Ian Somlai-Schweiger, Thomas Schroeder, Vittorio Brando, Simone Colella, Mariano Bresciani, Claudia Giardino, Quinten Vanhellemont, François Steinmetz, Daniel Scheffler, Maximilian Langheinrich, Emiliano Carmona, Martin Bachmann, Miguel F. V. Pato, Laura La Porta, Sebastian Fischer, Astrid Bracher

A practical workshop led by Neo, Hypspec. Guidance through some hyperspectral UAS data using ENVI and Breeze Geo software.

12:00pm
-
1:00pm

Poster Day 3: Poster session
Location: [ADEIT: Room 0.1](#)

Investigating Pseudo-Invariant Targets for Validation in SHIFT Time-Series Spectroscopy

Regina Eckert, Helena Kuehnle, David Thompson, Philip Brodrick, K. Dana Chadwick, Kathleen Grant, Mark Helmlinger, Daniel Jensen, Raymond Kokaly, Ryan Pavlick, Fabian Schneider, Robert Green

The Role Of Scale In Predicting Tree Physiology With Hyperspectral Data From Five Mid-European Tree Species

Ephraim Amos Schmidt-Riese, Michael Förster, Fabian Fassnacht, Pia Kräft, Robert Jackisch, Birgit Kleinschmit

Advancing Plant Trait Estimation using Imaging Spectroscopy: A Bayesian Approach with Enhanced Interpretability and Uncertainty Propagation

Dhruva Kathuria, Yoseline Angel, Evan Lang, Alexey N. Shiklomanov

Target Detection using UAV-Borne Hyperspectral Imagery

Luc Jérôme Siéro, Marius Vögtli, Simon Schreiner, Wolfgang Gross, Florian Queck, Jannick Küster, Jonas Mispelhorn, Wolfgang Middelman, Mathias Kneubühler

Comparing Hyperspectral Airborne Hyperspectral Imagery to Multi-Temporal Sentinel-2 Composites for High-Mountain Plant Communities Mapping

Marcin Kluczek, Bogdan Zagajewski, Marlena Kycko

Identification Of Biophysical Traits In Spectral Signatures At The Leaf Level In A Mixed Beech Forest In Northeast Germany

Pia Kräft, Ephraim Schmidt-Riese, Michael Förster, Robert Jackisch, Ralf Kätzel, Frank Becker, Anne Clasen, Kai Jütte, Fabian Fassnacht, Birgit Kleinschmit

Validation of L2A Surface Reflectances Products using ROSAS (RObotic Station for Atmosphere and Surface) In-Situ Measurements

Sophie Coustance, Jérôme Colin, Arthur Dick, Olivier Hagolle, Aimé Meygret, Xavier Lenot, Lucas Landier

The Invisible Plant: Spectral Feature Analysis Of Tillandsia Landbeckii In The Atacama Desert

Fabian Reddig, Alexander Jenal, Christoph Hütt

Nitrogen Monitoring In Specialty Crops Of California; Case Studies In Almond And Grape

Alireza Pourreza, Momtanu Chakraborty, Parastoo Farajpoor, Sirapoom Peanusaha

Understanding The Potential For Hyperspectral Remote Sensing Supporting Peatland Restoration Projects

Michael Williams, Alice Burrell, Richard Chiles

Exploring Sequential Machine Learning Models Regarding Generalisation Opportunities For Hyperspectral Data Processing

Maximilian Langheinrich

Developing An Automatic Approach For Validating Fractional Cover Of Soils In Agricultural Fields Using UAV And Cellphone Images

Kevin Kühn, Paul Karlshoefler, David Marshall Ingram, Pablo d' Angelo, Uta Heiden

Leaf Structure Matters For Field Evaluation Of Chlorophyll Content With Portable Meters

Zuzana Lhotakova, Eva Neuwirthová, Markéta Potůčková, Lucie Červená, Lena Hunt, Lucie Kupková, Petr Lukeš, Petya Campbell, Jana Albrechtová

Monitoring Grassland Traits – from Multispectral to Hyperspectral Approaches

Anne Schucknecht, Sophie Reinermann, Francesco Fava, Giovanni Argenti, Ralf Kiese, Anita Bayer

Deep Learning based Semantic Segmentation for EnMAP-Box

Leon-Friedrich Thomas, Benjamin Jakimow, Andreas Janz, Patrick Hostert, Antti Lajunen

Utilizing Hyperspectral Imaging Spectroscopy for the Identification of Potential Toxic Elements (PTE) in the Hyperaccumulator Plant Brassica juncea, with a Focus on Remediation.

Friederike Kästner, Kuester Theres, Feilhauer Hannes, Sut-Lohmann Magdalena

Comparison Of Hyperspectral And Multispectral Remote Sensing For Improved Surface Soil Moisture Estimation

Hadi Shokati, Mahmoud Mashal, Aliakbar Noroozi, Ali Akbar Abkar, Thomas Scholten

Towards a Unified Data Model for Ground Based Surface Reflectance Measurements

Claas H. Köhler, David Marshall Ingram, Bringfried Pflug, Raquel de los Reyes

EUFAR – Current Status and Recent Development

Lucie Homolová, Ils Reusen, Jan Hanuš, Thomas Rhutz

Hyperspectral Remote Sensing of Wheat Lodging: An Insight to Its Physiology

Padmageetha Nagarajan, Roshanak Darvishzadeh, Andrew Nelson

Understanding The Changes In Maize Canopy Structure Caused By Fall Armyworm (J.E. Smith Spodoptera frugiperda) Using Field Hyperspectral Spectroscopy Measurements

Tatenda Dzurume, Roshanak Darvishzadeh, Timothy Dube, Andy Nelson

Sharing in-situ Measurements for Surface Reflectance Product Validation: a Proposal for Content, Format and Tools

Jérôme Louis, Bringfried Pflug, Sébastien Saunier, Raquel De Los Reyes

PRISMA and EnMAP Comparison in the context of Wheat Nitrogen Status Assessment

Maxime Troiani, Jean Bouchat, Louise Leclère, Yannick Curnel, Philippe Vermeulen, François Stevens, Benoît Scaut, Damien Malice, Vincent Baeten, Nicolas Chamberland, Viviane Planchon, Pierre Defourny

An Integrated Atmospheric-Terrain Correction Method for Imaging Spectroscopy

Yujie Zhao, Guorui Jia, Huijie Zhao

Soil Organic Carbon Estimation Using VNIR-SWIR Spectroscopy and Machine Learning

Ashfak Mahmud, Markku Luotamo, Kristiina Karhu, Petri Pellikka, Juuso Tuure, Janne Heiskanen

The Impact and Correction of Illumination and View Geometry (I&VG) on Spectral Reflectance Measured In Situ

Ziwei Wang, Guorui Jia, Huijie Zhao

A Prototype for Physiologically Based Retrieval of Landscape-scale Crop Growth and Development from Spaceborne Imagery

Lukas Valentin Graf, Flavian Tschurr, Quirina Noëmi Merz, Raphael Portmann, Achim Walter, Helge Aasen

The Accuracy of European Dry Heaths Identification Dependent on the Feature Reduction Method of Hyperspectral Images

Anna Jarocińska, Marlena Kycko, Dominik Kopeć

1:00pm
-
2:00pm

Lunch 3: Lunch break
Location: [ADEIT Conference center](#)

2:00pm
-
3:30pm

Them.Sess. 3-5: Hyperspectral remote sensing of vegetation health
Location: [ADEIT: Assembly hall](#)
Chair: Roshanak Darvishzadeh
Chair: Clement Atzberger
This session will be finalized by a round table including Miriam Machwitz, Roshanak Darvishzadeh and Clement Atzberger.

How Many Bands - How Narrow? A Comparison Of Three Different Sensors For Disease Severity Mapping.
Miriam Machwitz, Christian Bossung, Mario Gilcher, Gilles Rock, Franz Ronellenfitch, Adriano Gama, Daniel Molitor, Kristina Heilmann, Mareike Schultz

Utilization of Deep Learning and Hyperspectral Imaging for Water-Deficient Potato Plant Identification
Janez Lapajne, Andrej Vončina, Uroš Žibrat

Understanding the Effects of Bacterial Leaf Blight Disease on Rice Spectral Signature
Ziyi Wang, Roshanak Darvishzadeh, Nancy Castilla, Alice Laborte, Andy Nelson

The Spatial Scaling Challenge: ecophysiological variables retrieval and stress detection
Javier Pacheco-Labrador, MaPilar Cendrero-Mateo, Shari Van Wittenberghe, Itza Hernandez-Sequeira, Gerbrand Koren, Egor Prikaziuk, Szilvia Fóti, Enrico Tomelleri, Kadmiel Maseyk, Nataša Čereković, Rosario Gonzalez-Cascon, Zbyněk Mallenovský, Mar Albert-Saiz, Michal Antala, János Balogh, Henning Buddenbaum, Mohammad Hossain Dehghan-Shoar, Joseph T. Fennell, Jean-Baptiste Feret, Balde Hamadou, Miriam Machwitz, Ádám Mészáros, Guofang Miao, Miguel Morata, Paul

Them.Sess. 3-6: Imaging spectroscopy for environmental applications
Location: [ADEIT: Room 1.1-1.2](#)
Chair: Martin Bachmann
Chair: Daniel Schläpfer

First Nighttime VNIR-SWIR Spectra from Space – Mapping Artificial Lights using EnMAP
Martin Bachmann, Miguel Pato, Tobias Storch

Potential of Optical Spaceborne Sensors for the Differentiation of Plastics in the Environment
Toni Schmidt, Theres Kuester, Taylor Smith, Mathias Bochow

Using Global Imaging Spectroscopy To Detect And Monitor Climate Extremes
Bryce Currey, Benjamin Poulter, Shawn P. Serbin, David R. Thompson, Phillip A. Townsend, Arlindo M. Da Silva, Alexey N. Shiklomanov

A Physical Method for Optical Characterization of Pollution in Industrial Wastewater Ponds using Imaging Spectroscopy
Louis Zaugg, Rodolphe Marion, Malik Chami, Xavier Briottet, Laure Roupioz

Detection Methane Emissions from Municipal Solid Waste Landfill Using Airborne Spectroscopy
Olga Brovkina, Adam Bednařík, Daniel Kopkáné, Tomáš Fabiánek

Attribution Of Individual Methane And Carbon Dioxide Emission Sources Using EMIT Observations From Space

Naethe, Zoltán Nagy, Krisztina
Pintér, R. Reddy Pullanagari, Anshu
Rastogi, Bastian Siegmann, Sheng
Wang, Chenhui Zhang

Andrew Thorpe, Robert Green,
David Thompson, Philip Brodrick,
John Chapman, Clayton Elder, John
Worden, Dana Chadwick, Willow
Coleman, Claire Villanueva-Weeks,
Amanda Lopez, Daniel Jensen,
Michael Eastwood, Jay Fahlen,
Charles Miller

3:30pm - 4:00pm	Break 3-2: Coffee Break Location: ADEIT Conference center
4:00pm - 4:45pm	Closing: Awards & closing ceremony, Location: ADEIT: Assembly hall Chair: Jochem Verrelst Chair: Katja Berger Dr. Klaus-Ulrich Komp - Treasurer of EARSeL (Wrap-Up, next EARSeL location)