

Welcome



19 – 21 October 2022

2nd Workshop on International Cooperation in Spaceborne Imaging Spectroscopy

Giuseppe Ottavianelli, Head of the Applications Section, ESA
Marco Celesti, CHIME Mission Scientist, ESA

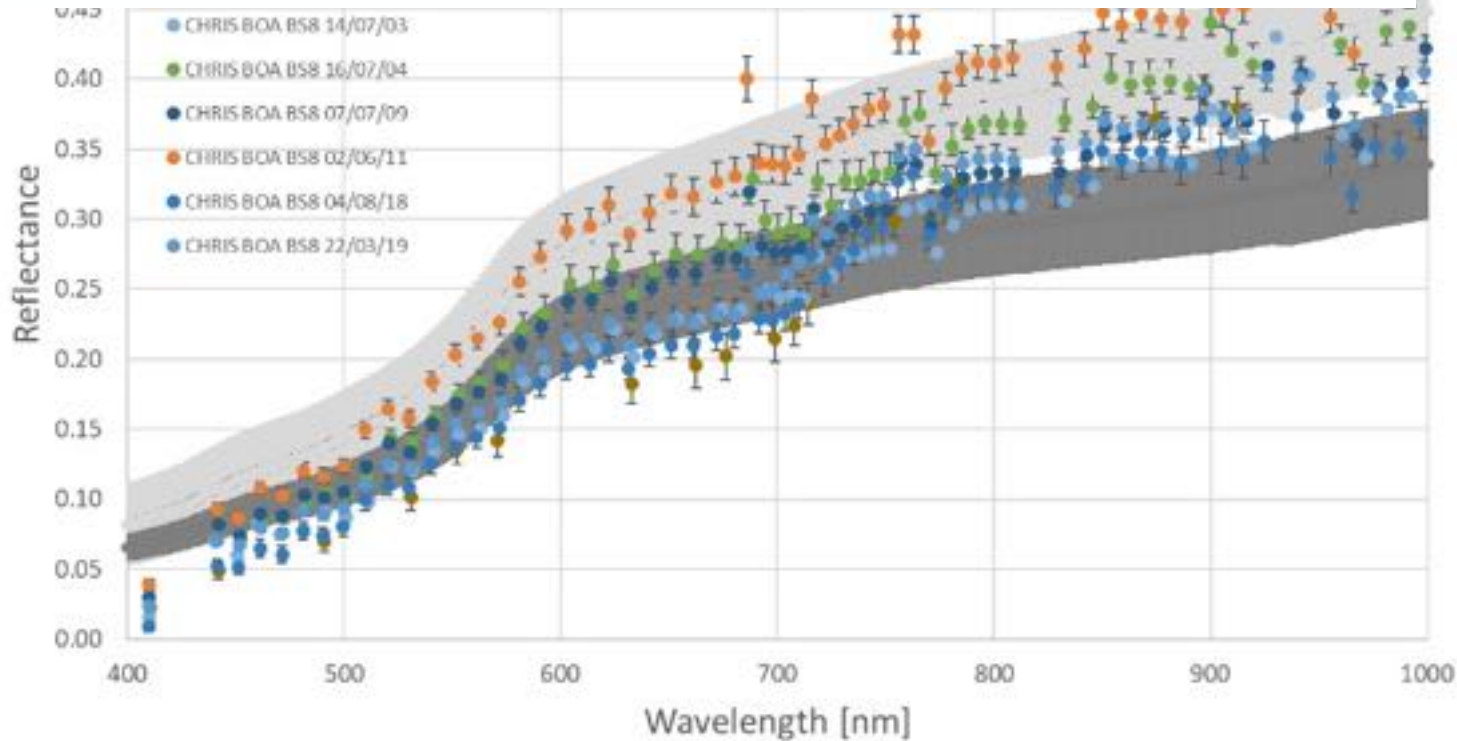
We have come a long way since...

...NASA EO-1 Hyperion Hyperspectral Imager, launched in November 2000, operational until March 2017...

...ESA mission Project for OnBoard Autonomy-1 (Proba-1) with its Compact High Resolution Imaging Spectrometer (CHRIS), launched October 2001...

Albufera, Spain, S Time-series comparison for the Bare Soil (BS8) site with two in-situ spectra plotted for comparison (SEN3EXP BS11 and SPARC BS8).

ela, Mexico, Aug 22



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- Assess the **status of current and planned** international imaging spectroscopy **missions**
- Review the key related **activities and projects** in the relevant **science and application** areas
- Strengthen **international cooperation and coordination** in the space and ground segment operation, calibration and validation, products definition, data access and data exploitation

Overview of Programme and logistics



Wednesday | 19 October

TRANSPORTATION INFO 08:00 Departure from Piazza Marconi (Frascati)

AIRONE

08:30-09:00	1.1 Registration and coffee	
9:00-9:45	1.2 Welcome and Introduction (ESA)	Giuseppe Ottavianelli, ESA Marco Celesti, HE Space for ESA - European Space Agency
9:45-11:00	1.3 Spaceborne Hyperspectral Missions Overview	Jens Nieke, ESA-ESTEC Charles Miller, NASA Jet Propulsion Laboratory
11:20-12:30	1.5 Spaceborne Hyperspectral Missions Overview - continue	Jens Nieke, ESA-ESTEC Charles Miller, NASA Jet Propulsion Laboratory
13:30-15:30	1.7 Harmonisation of data formats, products definition and toolboxes - Part 1	Marco Celesti, HE Space for ESA - European Space Agency Philip Townsend, University of Wisconsin
15:50-18:00	1.9 Harmonisation of data formats, products definition and toolboxes - Part 2	Jeff Dozier, University of California, Santa Barbara Thomas Painter, UCLA
18:00-19:00	1.10 On-board data processing	Giorgio Licciardi, ASI - Agenzia Spaziale Italiana Nicolas Longepe, ESA -ESRIN
19:00-20:30	1.11 Ice-breaker	

11:00-11:20 Coffee break
12:30-13:30 Lunch break
15:20-15:50 Coffee break

GROUP PHOTO

TRANSPORTATION INFO 20:30 Departure from La Collinetta to Frascati center

TRANSPORTATION INFO | 08:00 | Departure from Piazza Marconi (Frascati)

AIRONE

8:30-10:20	2.1 Mission calibration and data validation (up to surface reflectance) - part 1	Valentina Boccia, ESA Robert Green, NASA JPL
10:50-12:00	2.2 Mission calibration and data validation (up to surface reflectance) - part 2	Ferran Gascon, ESA Sabine Chabrilat, GFZ Potsdam / Leibniz Univ Hannover
12:00-12:30	2.3 Geo/biophysical parameter and applications - Plenary Introduction	Marco Celesti, HE Space for ESA - European Space Agency Giuseppe Ottavianelli, ESA
13:45-15:30	2.4.1 Vegetation traits retrieval and applications (e.g. agriculture, forestry) - part 1	Charles Miller, NASA Jet Propulsion Laboratory Giuseppe Ottavianelli, ESA
16:00-18:00	2.5.1 Vegetation traits retrieval and applications (e.g. agriculture, forestry) - part 2	Philip Townsend, University of Wisconsin Marc F. Paganini, European Space Agency (ESA)

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13:45-15:30	2.4.2 Soil properties retrieval and applications	Uta Heiden, German Aerospace Center (DLR) Eyal Ben Dor, Tel Aviv University
16:00-17:00	2.5.2 Atmospheric products and applications	Tsuneo Matsunaga, National Institute for Environmental Studies Antony Delavois, ESA
17:00-18:00	2.6.2 Minerals (composition / abundance) and urban applications	David Thompson, Jet Propulsion Laboratory, California Institute of Technology Stefano Pignatti, Istituto di Metodologie per l'Analisi Ambientale

8:00-8:30	Welcome Coffee
10:20-10:50	Coffee break
12:30-13:30	Lunch break
13:30-13:45	Transfer time to splinter room
15:30-16:00	Coffee break

TRANSPORTATION INFO | 18:30 | Departure from La Collinetta to Frascati center

19:45-22:00 | Dinner (non-hosted) | Location: Belvedere dal 1933 Restaurant (Frascati) - Via Regina Margherita 29

TRANSPORTATION INFO | 08:00 | Departure from Piazza Marconi (Frascati)

AIRONE

8:30-10:30	3.1.1 Vegetation traits retrieval and applications (e.g. agriculture, forestry) - part 2	Anke Schickling, Space Agency at the DLR Luigi Ansalone, ASI
11:00-13:30	3.3 Overall discussion, conclusions and future recommendations	Marco Celesti, HE Space for ESA - European Space Agency Giuseppe Ottavianelli, ESA

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8:30-9:30	3.2.1 Inland and coastal waters products and applications	Marie-Helene RIO, ESA/ESRIN Ils Reusen, VITO
9:30-10:30	3.2.2 Cryosphere (snow/ice) products and applications	Roberto Colombo, Università Milano Bicocca Uta Heiden, German Aerospace Center (DLR)

8:00-8:30	Welcome Coffee
10:00-12:00	Coffee Break
13:30-14:30	Lunch break

TRANSPORTATION INFO | 15:15 | Departure from La Collinetta to Frascati center

The Organising Committee decided to keep all contributions as oral presentations.

A dense programme with high-quality inputs.

→ Importance of the Q&A and discussion sessions

Speakers need to keep the schedule of their allocated timeslot.

Session Chairs moderate the discussion and capture the key messages.

Concrete recommendations and follow-up actions Towards a sustainable future.



Your contribution towards zero impact



<https://www.treedom.net/it/organization/esa-esrin/event/2ndhyperspectralworkshop>



100 TREES: agroforestry projects in rural communities in Africa and South America, supporting sustainable ecosystems and allowing thousands of farmers to cover the initial costs of planting new trees, ensuring food autonomy and income opportunities over time: **environmental, social and financial benefits to their communities.**

 **Ecuador**
25 alberi

 **Kenya**
25 alberi

 **Madagascar**
25 alberi

 **Tanzania**
25 alberi



ESA-ESRIN

1,731 Trees **-358.11 t*** CO₂ **6** Countries





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