

THEIA WORKSHOP

Sentinel-2 L2A MAJA products

13-14 Jun 2018 Toulouse (France)

**ENSEEIHT
2, rue Charles Camichel
31071 Toulouse Cedex 7**



The aim of this workshop is to collect feedback and share experiences on the quality, use and applications of the L2A surface reflectance products delivered by Theia from Sentinel-2 data.

The meeting objectives are as follows:

- to provide information about L2A product status and validation
- to gather feedback from users about L2A product quality
- to show applications and results of L2A Sentinel-2 time series
- to share experiences on how to use the products
- to collect suggestions for improvements.

Wednesday, June 13th

SESSION 1 - DATA / PRODUCTS – Chairpersons A.Sellé, O.Hagolle

10:00	The French thematic data centers	S.Churchali
10:10	Introduction for the workshop	A.Sellé/O.Hagolle
10:30	Validation of L2A products provided by MAJA L2A Processor	C.Desjardins
10:50	Using Copernicus Atmosphere products in the atmospheric correction processor MAJA	B.Rouquié
11:10	Inter-comparison of atmospheric correction methods applied to Sentinel-2 images	I. Sola
11:30	High Resolution Surface Albedo from Sentinel-2 data	J.L.Roujean
11:50	Three snow seasons in the Pyrenees through the eyes of Sentinel-2	S.Gascoin
12:10	New algorithm for mapping soil moisture by coupling Sentinel-1 and Sentinel-2 images	M.El Hajj
12h30	Lunch Break	

SESSION 2 –PLATFORMS-

Chairpersons S.Bontemps, O.Hagolle

14:00	Venus: the mission and its first results after 11 months in orbit	G.Dedieu
14:20	MUSCATE: A Multi-Satellite, Multi-Sensors and Multi-Temporal Versatile Platform designed for THEIA	J.Donadieu
14:40	Sentinel-2 for Agriculture: Sentinel-2 operational exploitation for supporting agriculture monitoring at parcel level from local to national scale around the world	S.Bontemps
15:00	GeoStorm on EO IPT Poland: a private initiative to provide EO adding value data in a geospatial platform	M.Savinaud
15:20	An experience in making Sentinel-2 based services possible, useful, and operational	C.Murgue
15:40	Break	

SESSION 3 –AGROSYSTEMS

Chairpersons G.Dedieu, D.Courault

16:10	Experiences with Sentinel-2 data for crop monitoring in Belgium	R.VanHoolst
16:30	Designing a service with the Living Lab approach	F.Toumial
16:50	Combining crop model with Sentinel 2 data for the assessment of rice agricultural practices and yields in the South-Eastern France	D. Courault
17:10	In-season estimation of sunflower and wheat yields using optical multi-temporal satellite images	R.Fieuzal

Thursday, June 14th

09:30	Towards a monitoring system for oasis agro-systems using Sentinel2 data	E. Delaitre
09:50	Two case studies on the use of Sentinel-2 MUSCATE images in tropical contexts (French Guiana and Madagascar)	C. Révillion

SESSION 3 - LAND COVER

Chairpersons J. Inglada, M. Fauvel

10:10	Sentinels synergy for seasonal agricultural crop mapping	S. Valero
10:30	A comparison of L2A Sentinel-2 image data providers for large scale land cover mapping: MAJA vs SEN2COR	J. Inglada
10:50	Break	
11:20	Evaluating Sentinel-2 L2A MAJA Products for Automatic Land Cover Classification in Tropical Areas using VHSR imagery and Satellite Image Time Series	R. Gaetano

SESSION 4 – FOREST

Chairpersons : J.B. Feret, L. Kergoat

11:40	Sentinel 2 BOA reflectance in the context of tropical rainforest: preliminary illustration of the challenges for the extraction of vegetation properties	J.B. Feret
12:00	Monitoring biophysical properties of Eucalyptus plantations using Sentinel 2 time series	J.B. Feret
12:20	An observatory for water, forest and biogeochemical cycles in South East Cameroon	N. Barbier
12:40	Lunch	
14:00	Poplar plantations monitoring with Sentinels products : combination of optical and radar remote sensing data	Y. Hamrouni
14:20	Monitoring and understanding the green-leaf phenology of tree species with Sentinel-2	N. Karasiak
14:40	Post-Fire assessment using Sentinel-2 images in French Mediterranean area	B. Reymond
15:00	Non-photosynthetic vegetation monitoring in agro-pastoral Sahel and erosion risk.	L. Kergoat

SESSION 5 – WATER

Chairpersons : J.M. Martinez, M. Grippa

15:20	SURF-WATER : A high-resolution and near real time monitoring of surface water extent using a multi-sensor & multi-temporal approach	S. Pena Luque
15:40	Assessing water quality over inland waters with Sentinel-2 THEIA products	J.M. Martinez
16:00	Monitoring West African water bodies using Sentinel2	M. Grippa
16:20	Conclusions	

POSTERS

- Theia Sentinel-2 images for the optimization of irrigation advice in pear orchards
P.Janssens, S.Reynaert, H.Vandendriessche, S.Remy, W.Verjans, J.Helsen, D.Bylemans
LIVE A2S Unistra
- URBA-OPT-S2 : a processing chain based on Sentinel-2A to extract artificialized areas
H.Bernini, J.M.Martinez, C.Gosset, H.Roig, D.Olivetti, D.Raphael Santos
B.Mougenot
- Assessment of the MAJA and SEN2COR applied in highly turbid waters
- Suivis avec Sentinel-2 des ressources hydro-agricoles et forestières en Tunisie
- Multiscale description of Sentinel-2/MAJA products: a spectral and structure function approach.
M.Neuhauser, S.Verrier, S. Mangiarotti
- Spatial Distribution of Total Suspended Solids (TSS) as Impact of Sidoarjo Mud Disaster using Sentinel-2 Imagery (Case Study: Porong River, Sidoarjo)
F. Bioresita, C.BhektiPribadi, T.Hariyanto, A.Puissant
- Health status diagnosis of chestnut forest stands using Sentinel-2 images
V.Chéret, Y.Hamrouni, M.Goulard, J.Denux, H.Poilvé, M.Chartier
- Use of hyper-spectral imagery on-board a drone for calibration and validation of a chlorophyll a algorithm based on Sentinel 2 imagery for monitoring harmful algae bloom in inland waters of southern Quebec.
J.P.Dedieu, K.Chokmani, A.ElAlem, J.Camy, M. Trindade
- A sensor invariant atmospheric correction method for satellite images
Y.Feng, J.Gomez-Dans
- Intégration des données Sentinel 2 dans un system SIG pour la quantification et l'évaluation de l'érosion hydrique
A.Ouakil, J.Chao, H.Elbelghiti, B.Benhichou
- Potential of Sentinel-2 data to quantify grassland biomass production. Implementation of an operational management support service
P.Dusseux, H.Nicolas
- Use of Sentinel-2 data for geomorphological mapping in the coast of Essaouira (Southwest Morocco)
S.Tifratine, K.Tajeddine, G.Gabriele Ori
- Apport des images multi-sources à l'identification des espèces ligneuses en milieu agroforestier au Sénégal
M.Kora
- Integration of the temporal synthesis processing chain into MUSCATE
P.Kettig, O.Hagolle
- Vulnerability assessments of Guinea coast to sea-level changes using radar and GIS techniques
S.Akande
- Detection and Monitoring of large landslides from satellite image time series: The prototype MPIC service tailored for the Alpine Massif
A. Stumpf, J.P.Malet, D.Michéa, F.Provost, C.Hibert, A.Puissant