

LIAISE Workshop 1: Field campaign overview and associated activities

March 8-9, 2021 by Videoconferencing.



Land surface Interactions with the Atmosphere
over the Iberian Semi-arid Environment

Agenda (times are in CET)

March 8, 2021

9:00-9:10

A. Boone (CNRM):

- Campaign and project update

9:11-9:16

Fabienne Lohou and Marie Lothon (LA):

- Summary of the MOSAI project (and interactions with HILIAISE).

9:17-9:22

Volker Wolfmeyer (UH)

- The GEWEX Land Atmosphere Feedback Observatory (GLAFO) and its relation to LIAISE

9:23-9:33

Jean-Christophe Canonici, Aurelien Bourdin (SAFIRE):

- Working methods for field campaigns, and an overview of the main specific constraints due to airborne experiments

9:34-9:39

Mehrez Zribi (CESBIO):

- GLORI airborne soil moisture estimates

9:40-9:45

Uwe Rascher (JFZ):

- Measuring plant mediated C and H₂O fluxes by means of fluorescence

9:46-9:51

Yves Goulas, Valerie Le Dantec (LMD):

- *in situ* Fluorescence in support of airborne measurements

9:52-10:02

Guylaine Canut (CNRM), **Marie Lothon** (LA):

- Characterization of ABL dynamics using a combination of observations and LES
- Review of UHF for Els Plans and La Cendrosa, and tethered balloons, SEB station, windcube at La Cendrosa

10:03-10:43

Oscar Hartogensis, Mary-Rose Mangan (WUR):

- Quick overview of the NLDE-group showing how our measurements are integrated into an overall experimental design.
- Network of cheap multi-band radiometers (tentative contribution) by Wouter Mol (PhD), Chiel van Heerwaarden and Bert Heusinkveld

Miriam Coenders (TUD):

- Distributed Temperature Sensing (DTS)

Thomas Roeckmann, Robbert Moonen (UU)

- High frequency isotope instruments to measure isotope fluxes of H₂O and CO₂

Alexander Graf (JFZ)

- Gradient-elevator

Arnold Moene (WUR), Kevin van Diepen (PhD), Raquel Gonzalez (PhD), Elias Kaiser, Sarah Berman (WUR) and Hugo de Boer (UU):

- High resolution eco-physiological modeling study (Arnold)
- NLDE Ecophysiology Group - The common equipment from WUR and UU (LiCOR6400 as one of main instruments) (Hugo)

Jordi Vila (WUR), Raquel Gonzalez (PhD), Kim Faassen (PhD)

- Support of experimentalists and analysis of in-situ observations/design numerical experiments
- Impact of fire above the surface and in the atmosphere: before, during and after

10:44-10:49

Jean-Christophe Calvet:

- Global Scale Land surface Data Assimilation using SURFEX: LDAS-Monde

10:50-11:05

Short Break

11:06-12:00

Group Discussion

March 9, 2021

9:00-9:15

Joan Cuxart, Maria Antonia Jiménez Cortéz, Dani Martinez Villagrasa (UIB), Jannis Groh (JFZ), Burkhard Wrenger (TH-OWL):

- Flux-gradient relationships & SBL spatial structure
- Estimate u^* , H, LE with the gradient method over different surfaces and compare to EC-systems and lysimeters
- Tethered balloon soundings from late afternoon well into the night to inspect the formation of the SBL.
- Understanding the within-basin mesoscale circulations and the effect of the sea breeze in the evening: Mesoscale model intercomparison.
- Lysemeters by J. Groh

9:16-9:21

Josep Ramon Miró and Abdel Sairouni (SMC):

- SMC in the LIAISE campaign: Equipment and modeling.
- concerning the equipment deployed (Windrass, SEB and AWS) and also a bit mention to the model's intercomparison and future work.

9:22-9:27

Joaquim Bellevert (IRTA):

- Daily ET maps of the entire region of Lleida with S2+S3 imagery and the TSEB model (20 m resolution) compared with estimates of ET with eddy-covariance data and using UAVs equipped with thermal+multispectral sensors.

9:28-9:33

Joan Bech Rustullet (UB):

- Analysis of precipitation microphysical processes during LIAISE

9:34-9:39

Lionel Jarlan (CESBIO)

- An overview of CESBIO observations and activities

9:40-9:45

Michel Le Page (CESBIO), David Tous (SAF-Sampling):

- Spatially distributed surface soil moisture network for estimating irrigation

9:46-9:51

Oliver Branch (UH):

- Energy balance measurements over semi-arid cropland

9:52-10:03

Martin Best, Jeremy Price, Jennifer Brooke (UKMO):

- Observational strategy for the Els Plans site and modelling plans at the Met Office.

10:04-10:09

Fabien Gilbert (LMD):

- Lidar at Els Plans

10:10-10:15

Patrick Le Moigne, Guylaine Canut (CNRM):

- Measurements on lake Ivars lake and modelling

10:16-10:21

Pere Quintana (OE):

- Simulation of the real water cycle: impacts of irrigation using a land-surface model and remote sensing data.

10:22-10:27

T. Lawston (U. Delaware) and J. Santanello (NASA-GSFC):

- NU-WRF/LIS and irrigation modeling for LIAISE

10:28-10:33

Stephan Kral, Joachim Reuder (U Bergen):

- Anticipated UAS operations by the University of Bergen

10:34-10:39 (or 11:00)

Edward Kim (NASA-GSFC):

- Airborn surface soil moisture estimates from the SMAP simulator SLAP

10:40-10:55

Short Break

10:55-12:00

Group Discussion

Additional information:

Information on the radiosonde release strategy/schedule, and some information on UAVs, tethered balloons:

https://docs.google.com/document/d/1A0-E5HuJ1CKvA_9FVecx11HkbyvrNb7SOaZvI2FISKU/edit?ts=602cf22a

Overall instrument listing:

<https://docs.google.com/spreadsheets/d/1aLlml9nn4SfQsnKvpux8j56ebzG026qtW4ZHp4jz3s/edit#gid=838323348>

BlueJeans links:

Monday, March 08, 9h00-12h00 CET:

<https://bluejeans.com/403634579>

Tuesday, March 09, 9h00-12h00 CET:

<https://bluejeans.com/200866070>

Please note: the best way to join *BlueJeans* is either using the App or from your browser (this option is indicated in smaller font at the lower part of the connection page). *BlueJeans* seems to work best using the Chrome browser.