
Contribution of CESBIO to HILIAISE

GLORI Airborne soil moisture estimate / Mehrez Zribi et al.

In situ fluorescence measurements / Valérie Le Dantec et al.

Spatially distributed soil moisture measurements - irrigation monitoring and retrieval from remote sensing data / Michel Le Page, Lionel Jarlan, Pascal Fanise et al.

Multi-scale monitoring of drainage fluxes / Olivier Merlin et al.



IDEWA : a coupled remote sensing and modeling approach to monitor irrigation and drainage for ecosystems and water resources management (2020-2023)



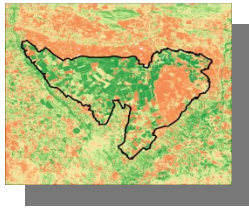
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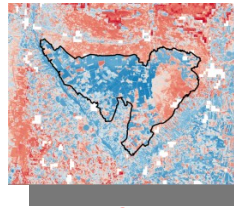
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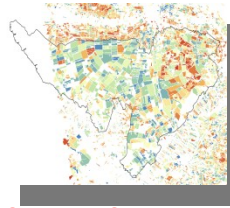
Vegetation index



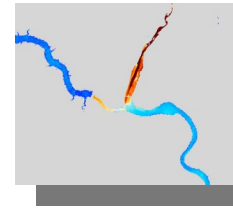
Evapotranspiration



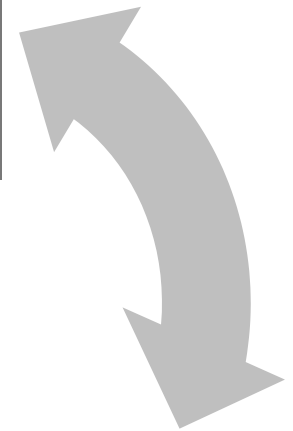
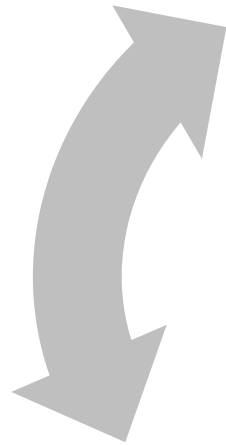
Soil moisture



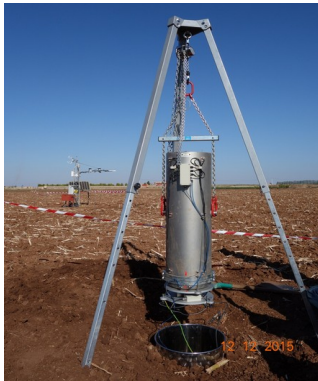
Water quality index



Multi-spectral EO data



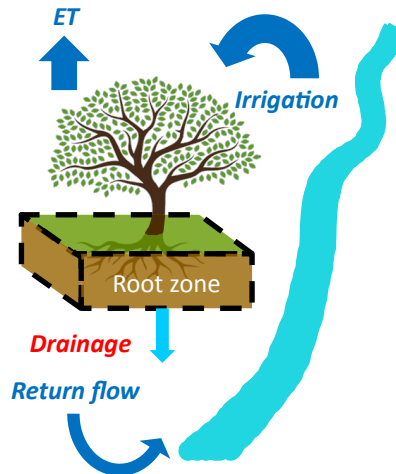
Drainage



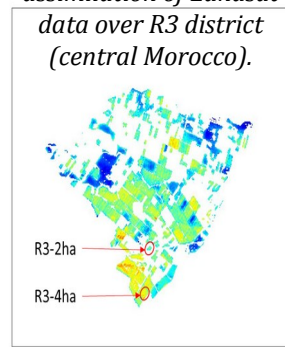
Evapotranspiration



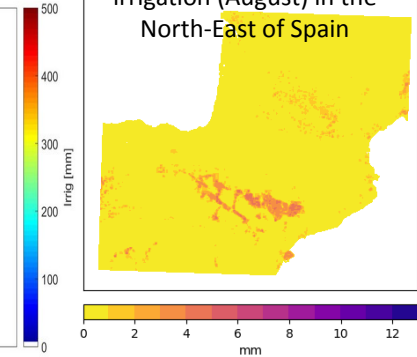
Field measurements



Seasonal irrigation retrieved from the assimilation of Landsat data over R3 district (central Morocco).



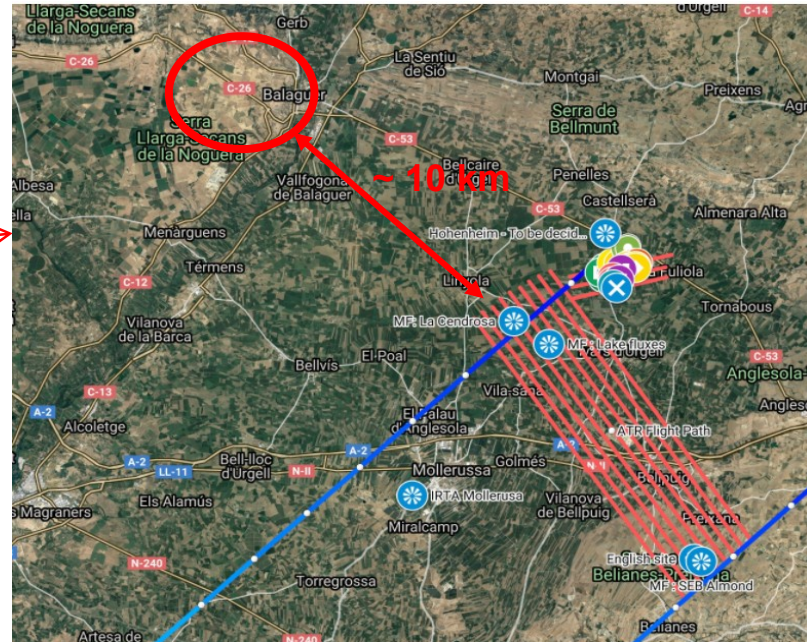
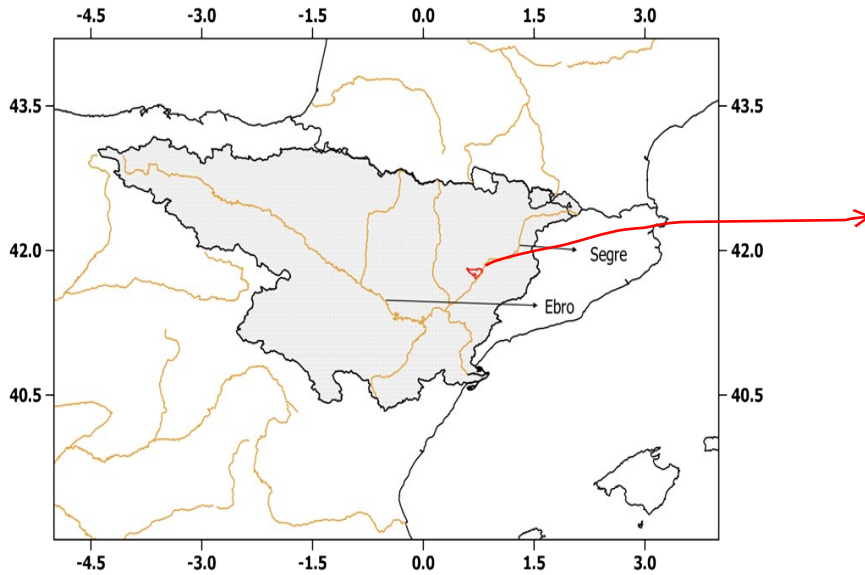
Average daily simulated irrigation (August) in the North-East of Spain



Multi-scale modeling



Focus study area: Algerri-Balaguer district



Preliminary data for AB2

Basin 5204 ha; 2012ha irrigated

Rainfall 17.55 hm³; irrigation 12.08hm³

Water drainage 4.45 hm³ from rainfall;

3.22hm³ from irrigation

88 kg N/ha yr; 22 kg K/ha yr

Drainage water flux and quality is measured from wells connected to a drainage network below the root zone over thousands of ha resembling a huge passive lysimeter

Field instrumentation in the Algerri-Balaguer district

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INSA INSTITUT NATIONAL DES SCIENCES APPLIQUÉES TOULOUSE

- To provide data at the field and irrigation district scales for validating remote sensing-based irrigation and drainage retrievals
- Continuous irrigation and drainage monitoring
- Installation of new sensors in May-June 2021:
 - 4 passive (G3 METER) and 1 active (SFL METER) mini lysimeters of 30 cm in diameter
 - Soil moist

