

Regional SIF: HyPlant – U. Rascher

Regional mapping of solar-induced fluorescence (SIF) and surface reflectance with the airborne spectrometer HyPlant

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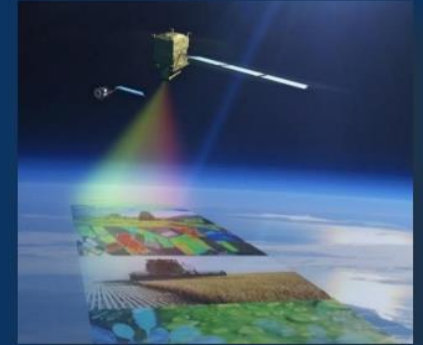
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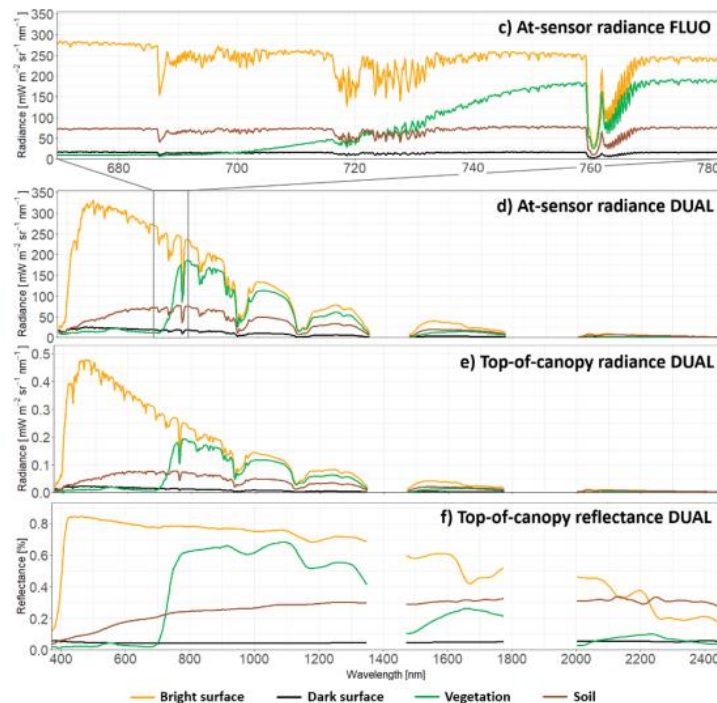
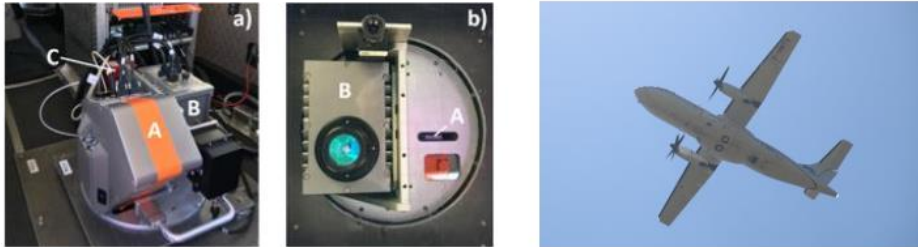
Regional mapping of solar-induced fluorescence (SIF) and surface reflectance with the airborne spectrometer HyPlant

Uwe Rascher, Bastian Siegmann, Julie Krämer, Nils Müller, Juan Quiros, Caspar Kneer, Patrick Rademske, Stephani Baum

Institute of Bio- and Geosciences
Plant Sciences (IBG-2)



Measuring SIF from the ATR42 (HyPlant)

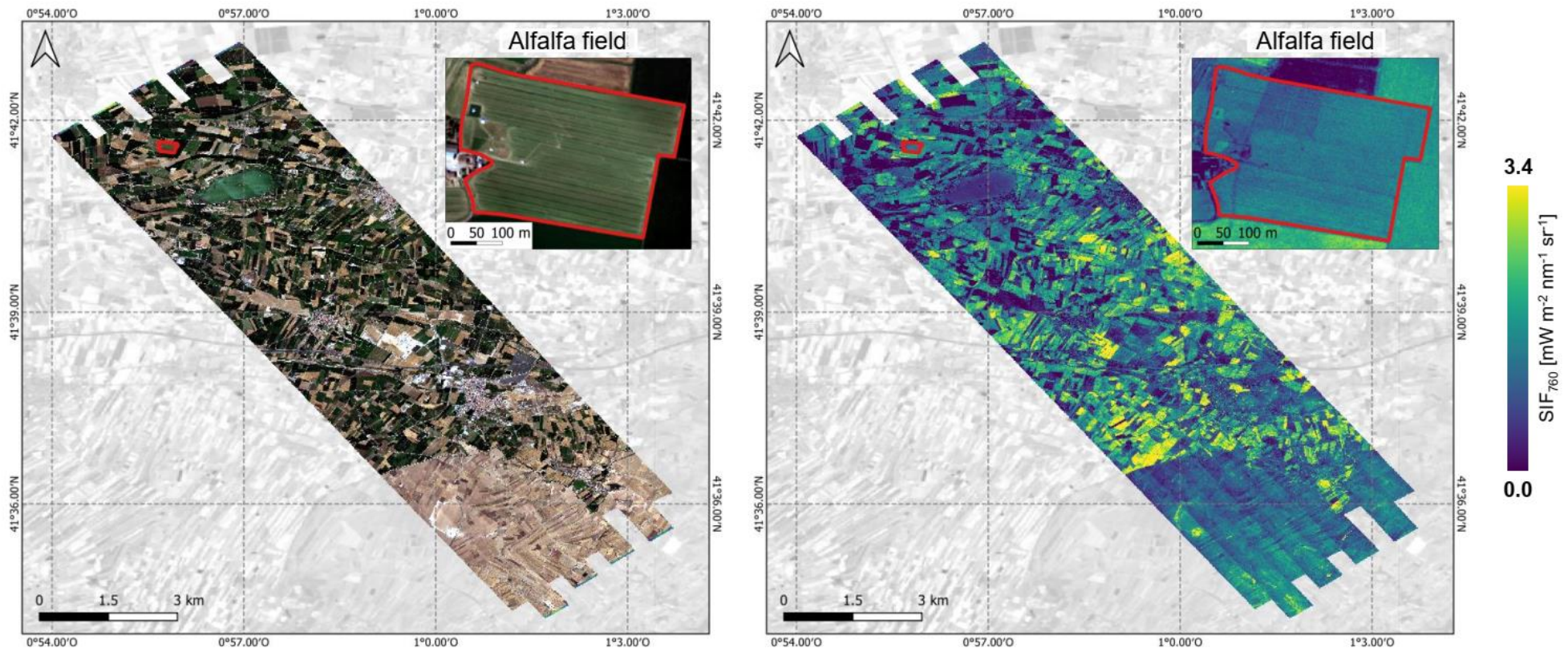


Objectives / goals

- *Aircraft:* Record high resolution data of surface reflectance and solar-induced fluorescence (SIF) of the study site with 4-5 meter pixel resolution
- *Aircraft:* Use these data to provide estimates of the spatial (and temporal) dynamics of photosynthesis, which can be translated to estimates of plant mediated carbon and water fluxes
- *Ground:* Characterize the diurnal dynamics of photosynthesis and fluorescence emission on a reference field in La Cendrosa
- *Ground & UAV:* Record maps of solar-induced fluorescence from different vegetation types in the study region to map the spatio-temporal heterogeneity of selected crop types (scale single plants to fields)

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HyPlant Mosaic – GLORI mapping – 17 July 2021: All data are of high quality and SIF maps look good



- 8 flight days = 200 flight lines = 400 data sets (both sensors)
 - Each flight day → turbulence legs, GLO mapping, FUL mapping, VER mapping