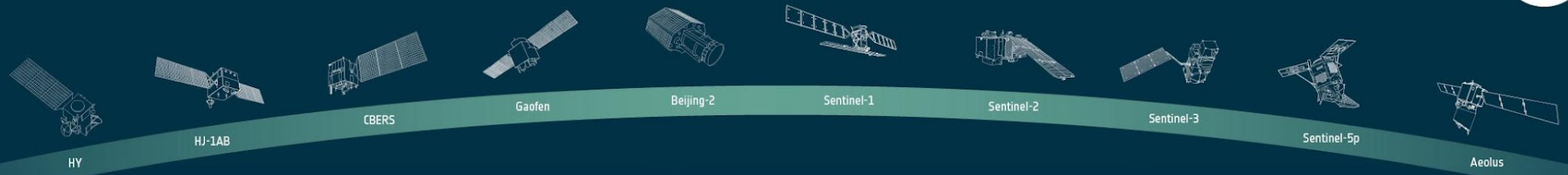


2022 DRAGON 5 MID-TERM RESULTS SYMPOSIUM

YOUNG SCIENTISTS POSTER SESSION

19 OCTOBER 2022

Europe: 08:30–12:30 – China: 14:30–18:30

[PROJECT ID.58817]

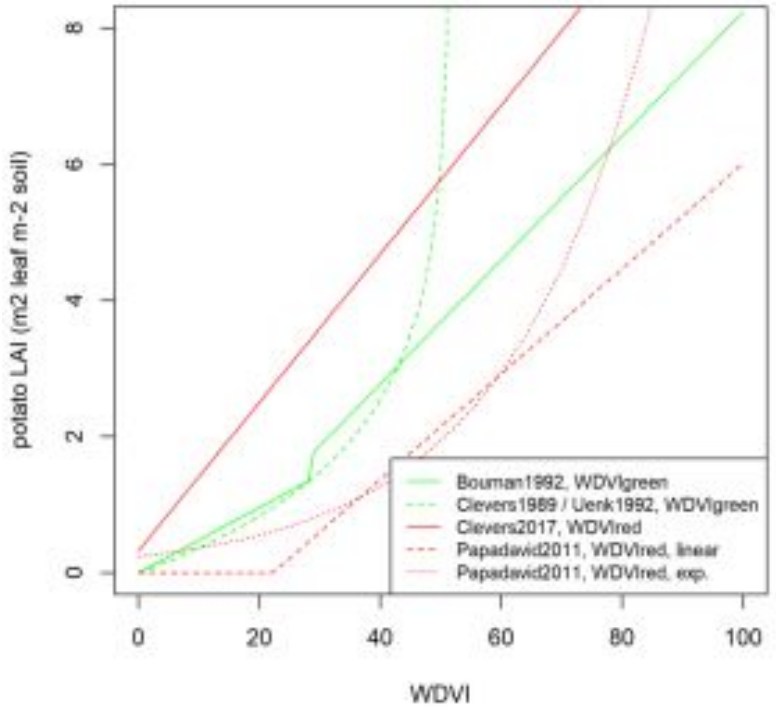
[EXPLORING UVAS FOR VALIDATING DECAMERTIC EARTH OBSERVATION DATA FROM SENTINEL-2 AND GALVAN-6 (UAV4VAL)]

INTRODUCTION

- Dragon 5 project id:58817
- Poster Title:Vegetation Index Sensitivity test based PROSPECT+SAIL model – a preliminary test under the UAV4VAL project
- Authors: Xuerui Guo

INTRODUCTION

- Plant canopy characteristics like Leaf Area Index (LAI) and Leaf Chlorophyll Index (LCI) are important indicators of plant growth status
- Remote sensed vegetation indices (VIs) has been reported efficient for retrieving plant canopy traits
- However, the regression VI-LAI relationships are differ from previous studies.



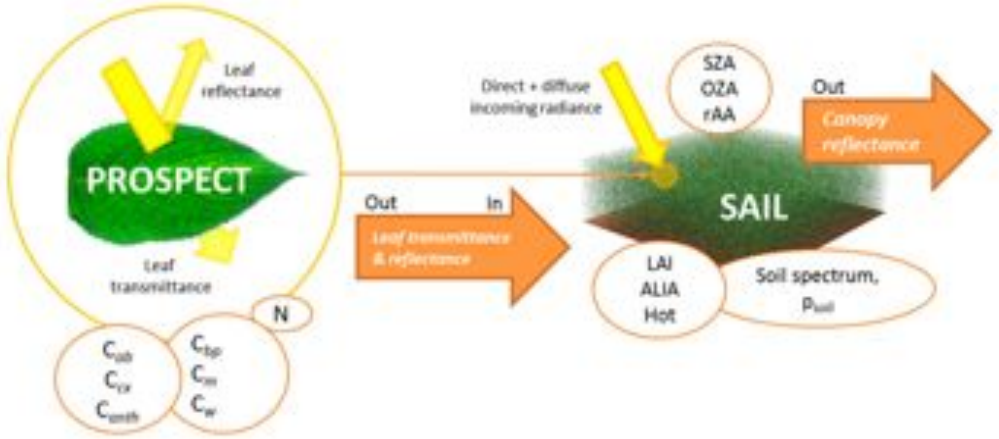
OBJECTIVES & RESEARCH APPROACH

Objectives

- Test the VI sensitivity on LAI retrieval
- Evaluate the VI-LAI relationship based on different sensors.

Research Approach

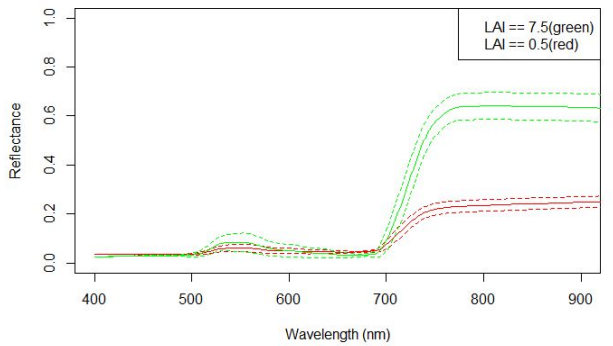
- Generate simulated spectrum dataset from PROSPECT+SAIL model
- Resampling the continuous sepctrum to two different band settings
- Compare the LAI- VI relationships and VI calculated from two sensors.

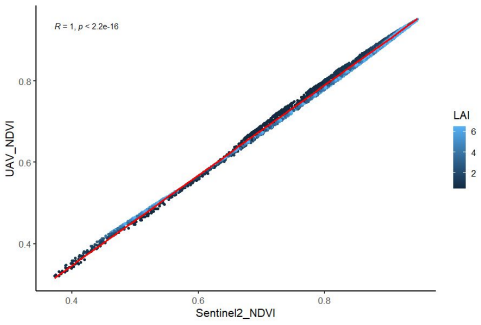


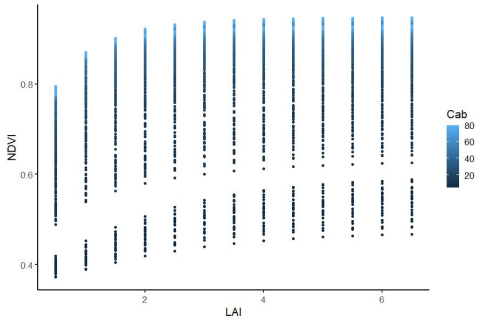
SUMMARY & CONCLUSIONS

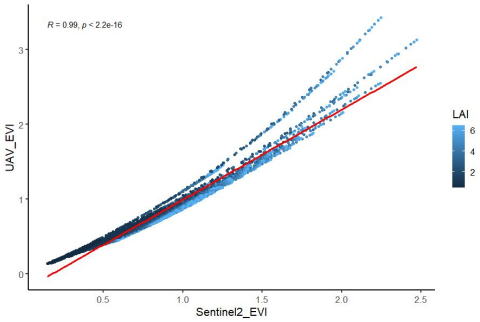
Results

- LAI value lead to different spectrum,especially the increase amplitude in near-infrared region.
- LAI-NDVI relationships vary for different chlorophyll content.
- EVI revealed more robust than NDVI for L AI retrieval as it more sensitive to the high dense vegetation









Conclusions

- Different band settings of UAV and Sentinel2 sensors didn’t have significant influence in VI calculation and LAI retrieval.
- VS .
- EVI revealed more robust than NDVI for L AI retrieval as it more sensitive to the high dense vegetation

REFERENCES & ACKNOWLEDGEMENTS

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