PROPOSAL FOR FLUXNET SYNTHESIS PUBLICATION FOR OPENED FLUXNET-LA-THUILE DATA SET

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Collaborators needing access to data:

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TITLE OF PAPER AND OUTLINE

TITLE: Satellite-based modeling of gross primary production of grasslands and croplands: Vegetation Photosynthesis Model (VPM)

Description

We aim to evaluate the satellite-based Vegetation Photosynthesis Model (VPM) across all the grasslands and cropland sites in the Opened Access dataset and to report the site inter-comparison results to peer-reviewed scientific journal. We will use both climate and flux data measured in the flux tower sites, and MODIS data at a 500 m spatial resolution to calculate GPP ($GPP_{vpm}$). We will compare VPM-predicted GPP results with the estimated GPP obtained from the FLUXNET dataset ($GPP_{ec}$). This study will help the scale-up of the CO₂ flux measurements and model improvements, which will lead to provide more accurate GPP estimates of grassland and croplands.

PROPOSED SITES TO BE INVOLVED

All the grassland and cropland sites in the dataset.

PROPOSED RULES FOR CO-AUTHORSHIP

We will contact the data provider and/or site principal investigator for their recommendation on whom to be invited for co-authorship. The co-author(s) are requested to participate in the discussion on the VPM simulation results and the comparison between the $GPP_{vpm}$ and $GPP_{ec}$ data. For those site investigators who do not contribute to the result analysis, discussion and writing, we will list their names in the Acknowledgement section of the manuscript.