

PROPOSAL FOR FLUXNET SYNTHESIS PUBLICATION



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DATASET PROPOSED

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TITLE OF PAPER AND OUTLINE

TITLE An Evaluation of GLASS Albedo Product

Description

Land surface albedo is one of the major driven factors to the climate system because it determines how much solar shortwave radiation will be absorbed at land surface. The variation of Land surface albedo is hard to predict as it is affected by so many factors, e.g., snow/rain, vegetation status, etc. So, satellite remote sensing is the most effective technique to map the spatial and temporal distribution of global land surface albedo.

Many global or regional land surface albedo products have been released. They are derived either from polar orbit satellite data, e.g. MODIS, POLDER, MERIS, MISR, VEGETATION, or from geostationary satellite data, e.g. MFG, MSG. The MODIS BRDF and albedo product issued by MODLAND team of NASA provide global albedo map in the continuous time series from 2000 till now. It is the most complete and widely recognized dataset for global albedo. Before 2000, however, there are few available global albedo products.

Global change researches demand spatially complete and long time consistent global albedo product. GLASS (Global LAnd Surface Satellite) is a series of remote sensing products generated by Chinese project entitled "Generation and Application of Global Products of Essential Land Variables" via Grant No. 2009AA122100 under the "State Program for High-Tech Research and Development (863 program)". It aims at providing long time land surface key parameters for global change study and climate modeling. The GLASS shortwave albedo will provide high quality and gapless global albedo product from 1985 to 2010.

Our purpose is to evaluation of the quantity of GLASS albedo product. The hemispherical albedo data measured in Fluxnet, along with ground measurements of other observation networks, will be compared with the estimates albedo in GLASS.

PROPOSED SITES TO BE INVOLVED

All FLUXNET sites with measurements of incoming and outgoing shortwave radiation.

PROPOSED RULES FOR CO-AUTHORSHIP

Offers of co-authorship will be extended to all who make significant contributions of data, ideas, and analysis.