Research Project:
Retrieval of plant biophysical and biochemical variables from remote sensing data using a hybrid machine learning method

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Abstract

This will be the abstract at the end [TO BE UPDATED]

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List of Abbreviations

3D . . . . . Three-dimensional

INFORM . . . Invertable Forest Reflectance Model

RTM . . . . . Radiative Transfer Model

SAIL . . . . . Scattering by Arbitrary Inclined Leaves

PROSAIL . . The combination of PROSPECT and SAIL models

FLIM . . . . . Forest Light Interaction Model

LAI . . . . . Leaf Area Index

MLRA . . . . Machine Learning Regression Algorithms

ML . . . . . Machine Learning

DT . . . . . Decision Trees

ANN . . . . . Artificial Neural Networks

KBMLRM . . Kernel-Based Machine Learning Regression Methods

RF . . . . . Random Forest

RFR . . . . . Random Forest Regression

LUT . . . . . Look-Up-Table

NN . . . . . Neural Networks

SVR . . . . . Support Vector Regression

SVM . . . . . Support Vector Machines

GPR . . . . . Gaussian Process Regression

GP . . . . . Gaussian Process

VI . . . . . Vegetation Index

DR . . . . . Dimensionality Reduction

WT . . . . . Wavelet Tranform

PCA . . . . . Principal Component Analysis

AL . . . . . Active Learning

1 Methods

This section explains the methods used in this research.