



HAROKOPIO UNIVERSITY



→ 4th ADVANCED TRAINING COURSE IN LAND REMOTE SENSING

AGRICULTURE

PRACTICE [D5P1b]

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1–5 July 2013 | Harokopio University | Athens, Greece

Objectives

- ▶ Initiation to scripting (in R and MATLAB)
- ▶ Introduction to a simple canopy radiative transfer model
- ▶ Hands on multi-temporal dataset in agricultural landscape and multi-temporal crop classification

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Ex 1. Introduction to PROSAIL

- ▶ Download MATLAB code from:
<http://teledetection.ipgp.jussieu.fr/prosail/>
- ▶ Explore the code and the data in dataSpec_P5B.m
- ▶ Run the code to obtain canopy reflectance spectrum with default parameters
- ▶ Write a script (in MATLAB) to calculate and visualize how the spectrum changes when LAI changes from 0 to 6
- ▶ Construct a relationship between LAI and NDVI

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Ex 2. Multi-temporal crop ID

- ▶ Open images from the ADAM dataset in ENVI
- ▶ Construct a multi-temporal stack of NDVI images
- ▶ Interpret the temporal profiles of the visible crops and try to make a vector training dataset for a supervised classification
- ▶ Adapt the R script for Random Forest classification in order to classify the NDVI image stack

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