



Surface Inversion

Data Process : Surface Parameter Data Inversion

Input Directory:

Output Directory: / 

Init Row: End Row: Init Col: End Col:

Local Incidence Angle File: 





Surface Parameter Data Inversion Procedures:

☐ Dubois ☐ Oh ☐ Oh 2004 ☒ X-Bragg 2008




Local Incidence Angle Unit:

☒ Degree ☐ Radian



X-Bragg Parameters:




Window Size : Row Col Dielectric Constant Step:   Beta Angle Step:  

Thresholds:

HVHV / VVV < (dB) HHHH / VVV < (dB)   

HHHH / VVV < p_max soil moisture (mv) = surface roughness (s) =

☒ Display X-Bragg - H / Alpha plane  

Description:

This functionality proposes the most important surface inversion procedures:

- Dubois model (P. Dubois et al. 1995)
- Oh model (Y. Oh et al. 1992)
- Oh 2004 model (Y. Oh et al. 2004)
- X-Bragg (I Hajnsek et al. 2000)

Comments:

Parameters written in Red can be modified directly by the user from the keyboard.

Input/Output Arguments:

Input Directory	Indicates the location of the considered Main Directory (MD) containing the polarimetric data sets to be processed.
Output Directory	Indicates the location of the processed data output directory. The default value is set automatically to : Main Directory (MD) .

Output Image Number of Rows/Columns:

The output image numbers of rows and columns are initialised to the input data set dimensions.

Local Incidence Angle File:

External file provided by the user and containing the Local Incidence Angle value (in degree or radian) for each pixel.
This file is a Raw Binary File (float 4 bytes elements) of size: Nrows x Ncols (same size as the processed image).

Local Incidence Angle Unit:

Corresponds to the unit used to define the Local Incidence Angle values.

Central Frequency (Dubois & Oh model):

Value of the Central Frequency (in GHz).

Calibration Coefficient (Dubois model) :

Value of the Calibration Coefficient (sigma0 calibration effect).

Thresholds (Dubois & Oh model) :

Value of the thresholds used for results validity.
