Use of SNAP Sentinel-1 toolbox to compute backscattering and InSAR coherence

Implementation of Sentinel-1 toolbox (in batch mode) in several projects and infrastructures for SAR processing in near-real-time and on large extents

Oral presentations:

Monday: A3.04.2 Agriculture - Common Agricultural Policy

03:55 pm

Sen4CAP open source system to support the new CAP "Monitoring and Evaluation Approach" using Sentinel-1 and -2 for near-real time monitoring of more sustainable agricultural practices

Dr. Sophie Bontemps | Université catholique de Louvain, Earth and Life Institute | Belgium

Tuesday: A3.04.5 Agriculture - Yield estimation and forecasting

Demonstration of Sentinel EO information added-value to support the agricultural statistics - the ESA Sentinel for Agricultural Statistics (Sen4Stat) project

Dr. Sophie Bontemps | Université catholique de Louvain, Earth and Life Institute | Belgium

Posters:

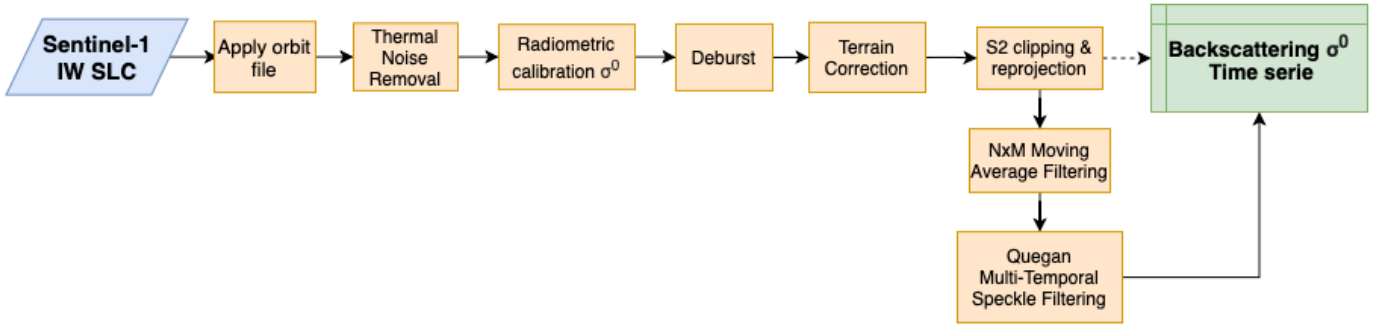
Monday – "Grassland types mapping using Sentinel-1 and Sentinel-2, from a management and an ecological perspective"

Thursday– "In season fields delineation from Sentinel-1 time series using Convolutional Neural Network for object-based crop monitoring system"

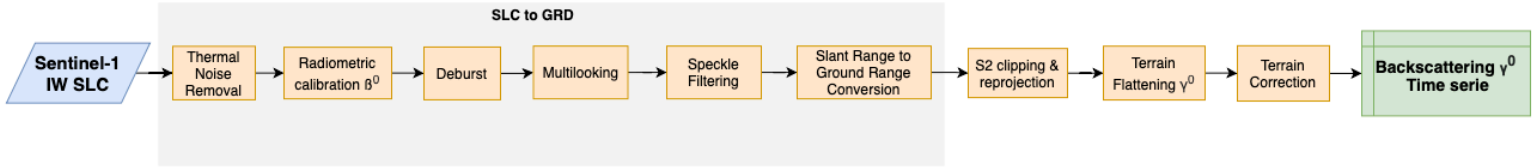
UCLouvain
Earth and Life Institute - *Geomatics*

State of the art Sentinel-1 preprocessing

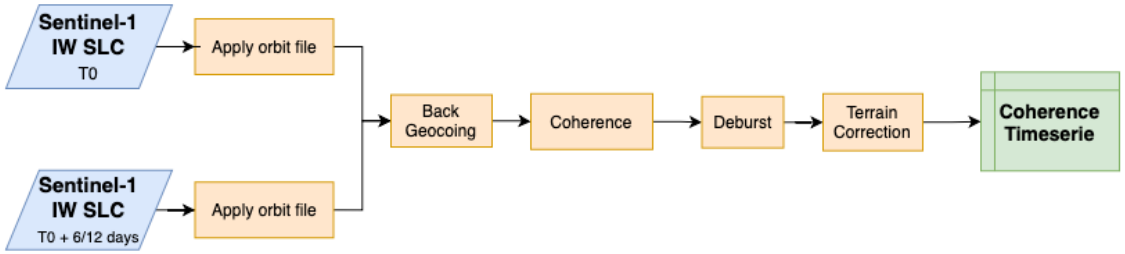
Sigma naught preprocessing



Gamma naught preprocessing



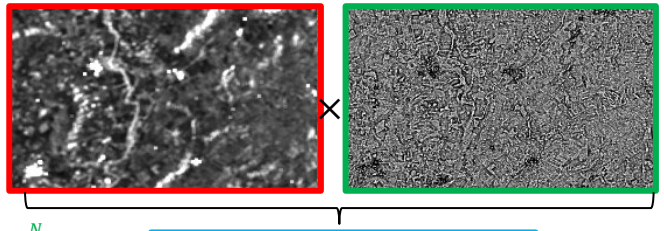
Coherence preprocessing



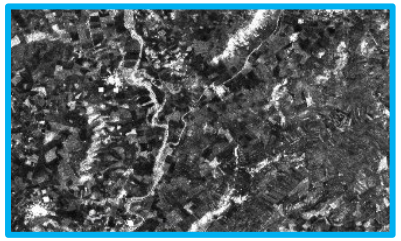
Orfeo Toolbox

SNAP

Multi-Temporal Speckle Filtering

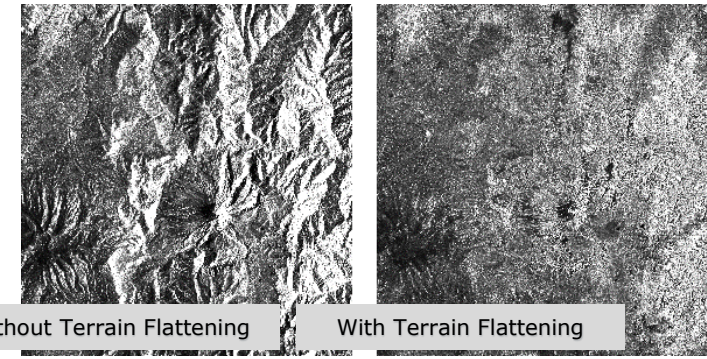


$$J_k(x,y) = E[I_k] \times \frac{1}{N}\sum_{i=1}^{N}\frac{I_i(x,y)}{E[I_i]}$$



Quegan S., 2001

Terrain Flattening



Without Terrain Flattening | With Terrain Flattening

Small D., 2011