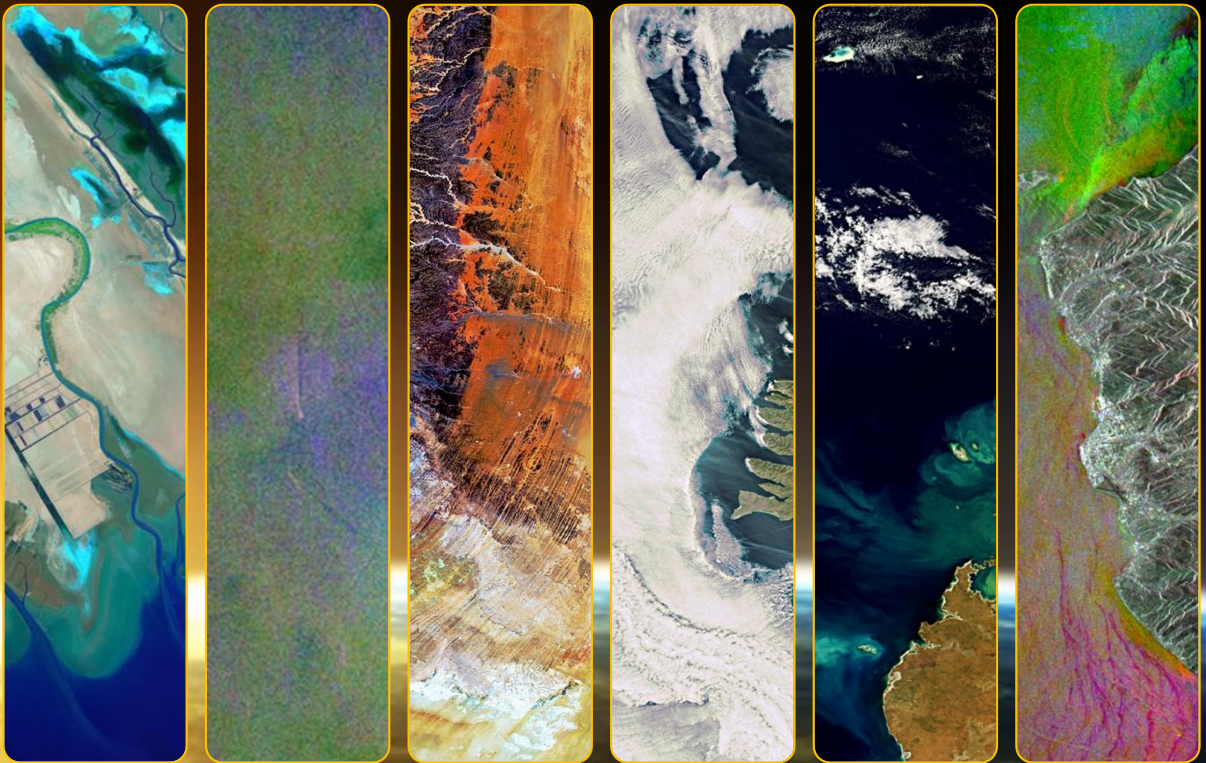


Signal Processing Laboratory



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Synthetic Aperture Radar Image Processing



SIGNAL PROCESSING

Spaceborne Synthetic Aperture Radars (SARs) have the capability to generate high-resolution images of the Earth's surface independently of solar illumination (i.e., day or night) and of cloud cover.

CSL activities on radar imagery processing began ten years ago and have resulted in the creation of the "signal Processing" laboratory. The projects spread over three principal themes :

■ SAR PRE-PROCESSING

Privileged Access to raw SAR data
Focused Image Generation
(10m to 1000m)

■ SAR POST-PROCESSING

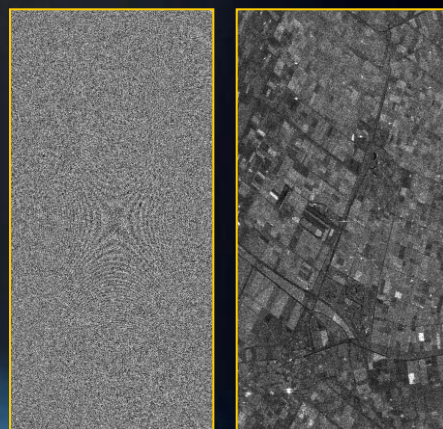
Specialized Imagery
Customized information

■ GEOMATIC APPLICATIONS

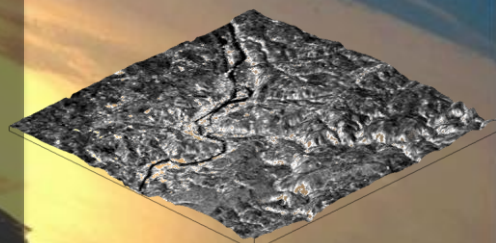
Geomatic (mapping, terrestrial movements ..)
Water monitoring
Agriculture
Disaster prevention
Urban development

References

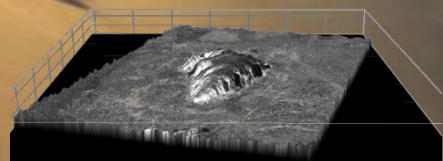
ESA
Belgian government & Walloon region
SAOCOM Argentinian satellite



Raw image as received from ERS-1, on the left. Reconstruction process results, in the focused image on the right.



A relief map of Liège region, obtained by applying the interferometric technique.



A digital elevation model of the Uluru monolith in central Australia, produced from a pair of TerraSAR-X High Resolution Spotlight acquisitions.