Transversal competencies

GRASP

Generalized Retrieval of Atmosphere and Surface Properties (GRASP SAS) is a start-up created in 2015 with the main goal of development of remote sensing algorithms and scientific methods for environment studies of atmosphere and surface of the Earth. GRASP SAS has been involved in collaboration with world-wide environmental public organizations and private companies, universities and the largest space agencies (ESA, EUMETSAT, NASA, JAXA).

COMPETENCIES & CAPABILITIES

The main GRASP SAS activities cover a wide range of remote sensing topics:

− Developments of algorithms for advanced atmosphere and surface characterization from passive and active ground based and space-borne remote sensing.

− Earth science data production and distribution.

− Scientific consulting in environmental studies.

− Services related to distribution and support of activities related with remote sensing GRASP open source software that GRASP SAS supports and develops.
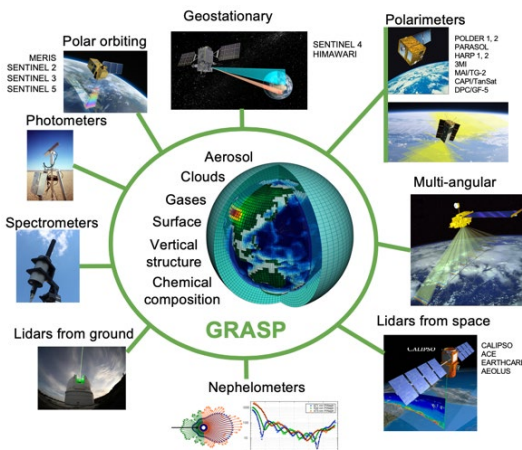
GRASP SAS

PRODUCTS & SERVICES

Generalized Retrieval of Aerosol and Surface Properties (GRASP) is a highly accurate aerosol retrieval algorithm that processes properties of aerosol- and land-surface-reflectance. It infers nearly 50 aerosol and surface parameters including particle size distribution, the spectral index of refraction, the degree of sphericity and absorption. The algorithm is designed for the enhanced characterization of aerosol properties from spectral, multi-angular polarimetric remote sensing observations. GRASP works under different conditions, including bright surfaces such as deserts, where the reflectance overwhelms the signal of aerosols. GRASP is highly versatile and allows input from a wide variety of satellite and surface measurements.

GRASP is an open source code available on https://www.grasp-open.com

MAJOR SPACE PROJECTS & REFERENCES

GRASP is an official Day 1+ algorithm for future 3MI mission.

GRASP is involved with EUMETSAT in the development of aerosol retrieval from Sentinel-3 OLCI observations.

GRASP is a part of the ESA operational algorithm for aerosol and surface from Sentinel-4 observations.

GRASP is involved with EUMETSAT in the development of aerosol and surface retrieval algorithm for of Sentinel-5p mission.

GRASP has been applied successfully for processing of full archives of data from POLDER-1, -2 and -3 and MERIS/ENVISAT missions, the results are publicly available at https://www.grasp-open.com/products/

List of GRASP related papers: https://www.grasp-open.com/publications/

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TURNOVER 0,6 M€

WORK FORCE 8 employees (incl. 7 PhD in Physics)

SPACE TURNOVER 0,45 M€

SPACE WORK FORCE 8 employees