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The EUMETSAT Satellite Application Facility on Land Surface Analysis

P. Viterbo and the LSA SAF Consortium
Instituto Português do Mar e da Atmosfera, Portugal

Information on land surface properties finds applications in a range of domains related to weather forecast, environmental research, hazard management, and climate monitoring. Remotely sensed observations yield the only means to supply land surface information with adequate time sampling and ensuring a wide spatial coverage. The scope of the Satellite Application Facility on Land Surface Analysis (LSA SAF) is to take full advantage of remotely sensed data to support land, land atmosphere interactions and biosphere applications; a strong emphasis is put on developing and implementing algorithms that will allow an operational use of data from EUMETSAT satellites. The presentation provides an overview of the LSA SAF, with brief descriptions of products. The set of parameters currently estimated and disseminated by the LSA SAF consist of three main groups: (i) surface radiation budget, including albedo, land surface temperature, and downward short- and long-wave fluxes; (ii) surface water budget (snow cover and evapotranspiration); and (iii) vegetation and wild fire parameters. In addition, a few examples will be presented illustrating the use of LSA SAF data in different applications, including model validation and guidance to changes on model physical parametrizations.