

The IASI Flux and Temperature project

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ABSTRACT

With over 16 years of activity, IASI has demonstrated its importance in monitoring atmospheric and climate variability. The IASI-FT (Infrared Atmospheric Sounding Interferometer - Flux and Temperature) ERC advanced project has come to an end. All the deliverables are now available on <https://iasi-ft.eu>, providing high-quality of datasets for climate and atmospheric studies. It includes a monthly (L3) spectrally resolved Outgoing Longwave Radiation (SR-OLR), a IASI L2 cloud detection product (CLD) and temperature products.

Through the IASI-FT website, we distribute monthly temperature products (L3), generated at LATMOS from IASI L1C radiance data. These products are surface skin temperatures (SkT), sea surface temperatures (SST), and atmospheric temperature profiles (ATP). Data and quick-look plots are also provided on line.

In this poster, we focus on surface temperatures and we calculate temperature anomalies from the IASI 2008-2024 data record to highlight extreme phenomena on a global scale, such as the El Niño Southern Oscillation (ENSO) variations. On regional scale, heat waves in Southeast Asia in spring 2024, cold spell in Europe in January 2024 or high temperatures recorded in the North Atlantic Ocean in summer 2023 will be presented.