Multi-Experiment Data and Operation Center

Missions de MEDOC

- Opérations des instruments en orbite
- Archivage et mise à disposition de données spatiales solaires, ainsi que de produits à «valeur ajoutée»
- Développements d'outils logiciels pour l'analyse et l'interprétation
- Collaboration entre centres nationaux
- Organisation d'ateliers, colloques pour l'analyse et l'interprétation des données

1996

Création du centre d'opération et de données MEDOC autour de la mission spatiale SOHO (ESA/NASA)

D'autres missions spatiales solaires viennent enrichir MEDOC: TRACE, STEREO, SDO...

2012

MEDOC devient un Pôle Thématique National «Données Spatiales Solaires», avec le label CNES/INSU/PSud

D'autres projets actuels et futurs enrichissent et enrichiront MEDOC: Picard, Solar Orbiter

Interfaces

SOLAR web data access

IAS Data Center

- HOME PAGE
- AVAILABLE DATA
- DATA SEARCH
- CONTACT

- RESOURCES
  - SOHO Mission
    - *IAS web Site*
    - *ESA web site*
    - *NASA web site*
  - STEREO Mission
    - *IAS web Site*
    - *NASA web site*
    - *NASA STEREO Science Center*
    - *NASA STEREO Mission*
    - *SECCHI - Naval Research Laboratory*
  - IAS EIT MPEG Movies Archive
  - CNRS web site

Search data objects

Common search criteria Search

Date from (DD-MM-YYYY) h. 00 m. 00 s. 00

Date to (DD-MM-YYYY) h. 00 m. 00 s. 00

Data type: ANY, Imagery, Spectrometry, Magnetometry, Particle flux

Spectral range: ANY, EUV (50 – 500 Angstrom), UV (800 – 3500 Angstrom), Visible (3000 – 9000 Angstrom)

Wave Min (Angstrom)

Wave Max (Angstrom)

Instrument Detector: ANY, CDS, CDS/GIS, CDS/NIS, CELIAS

SOHO Object: ANY, full FOV, FULL FOV, N/A, partial FOV

JOP number *Ex: 31*

Currently defined JOPs

Coordinates
Center position (arcsec)

Center position X From To

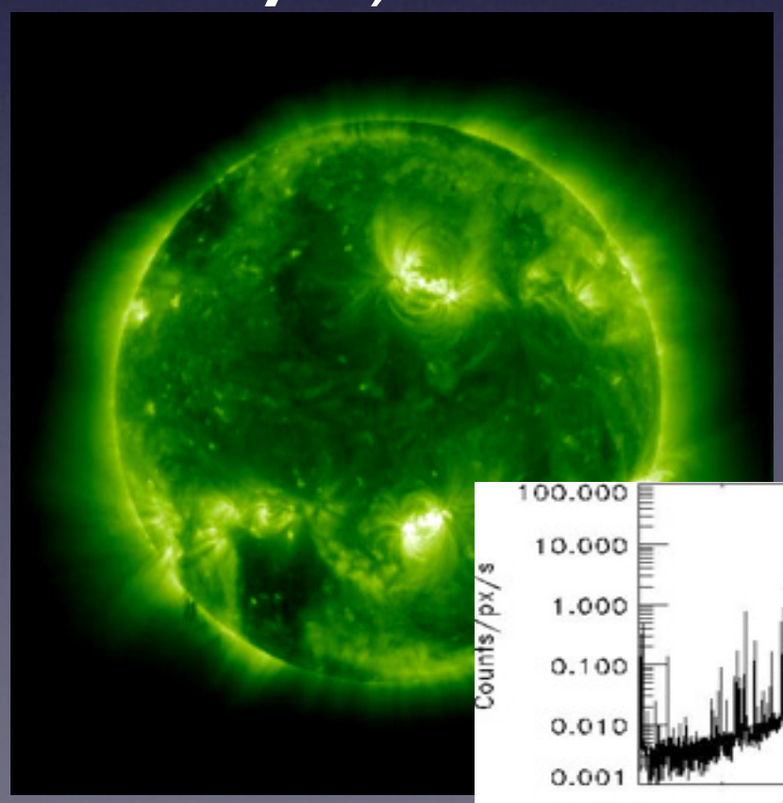
Center position Y From To

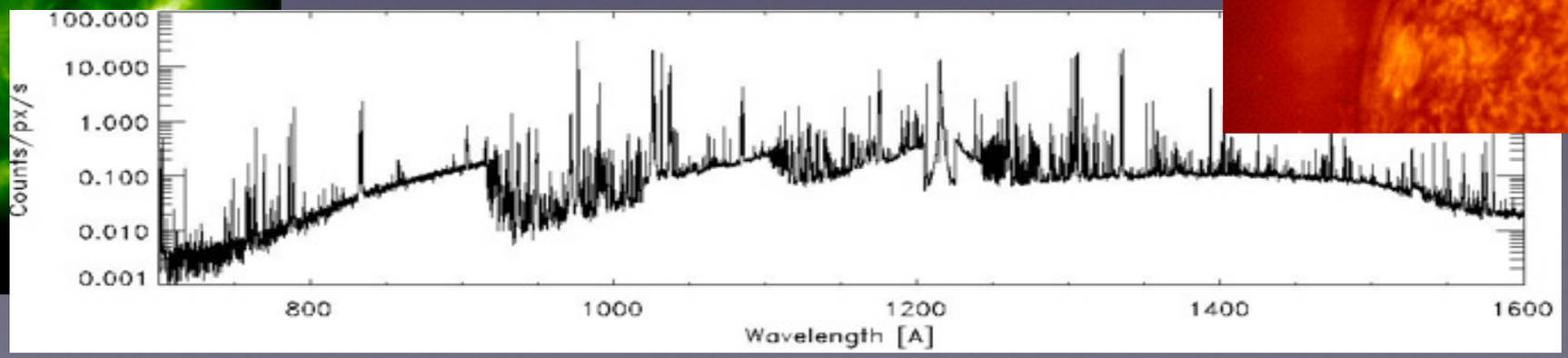
radius: $\sqrt{x^2+y^2}$ From To

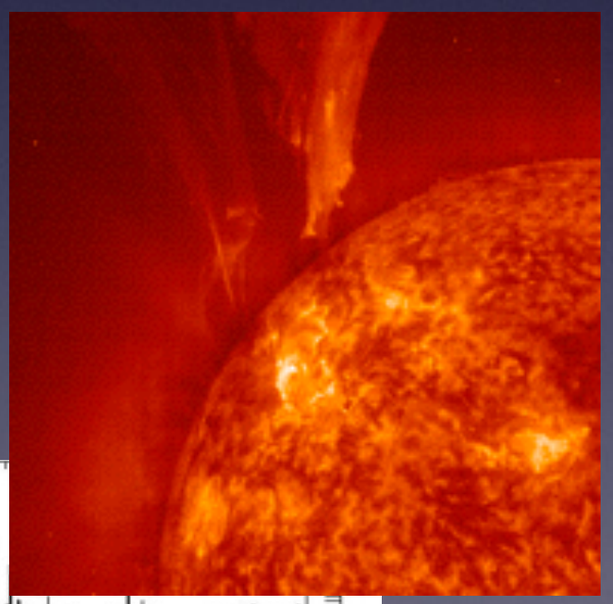
Interfaces

Depuis 2007:

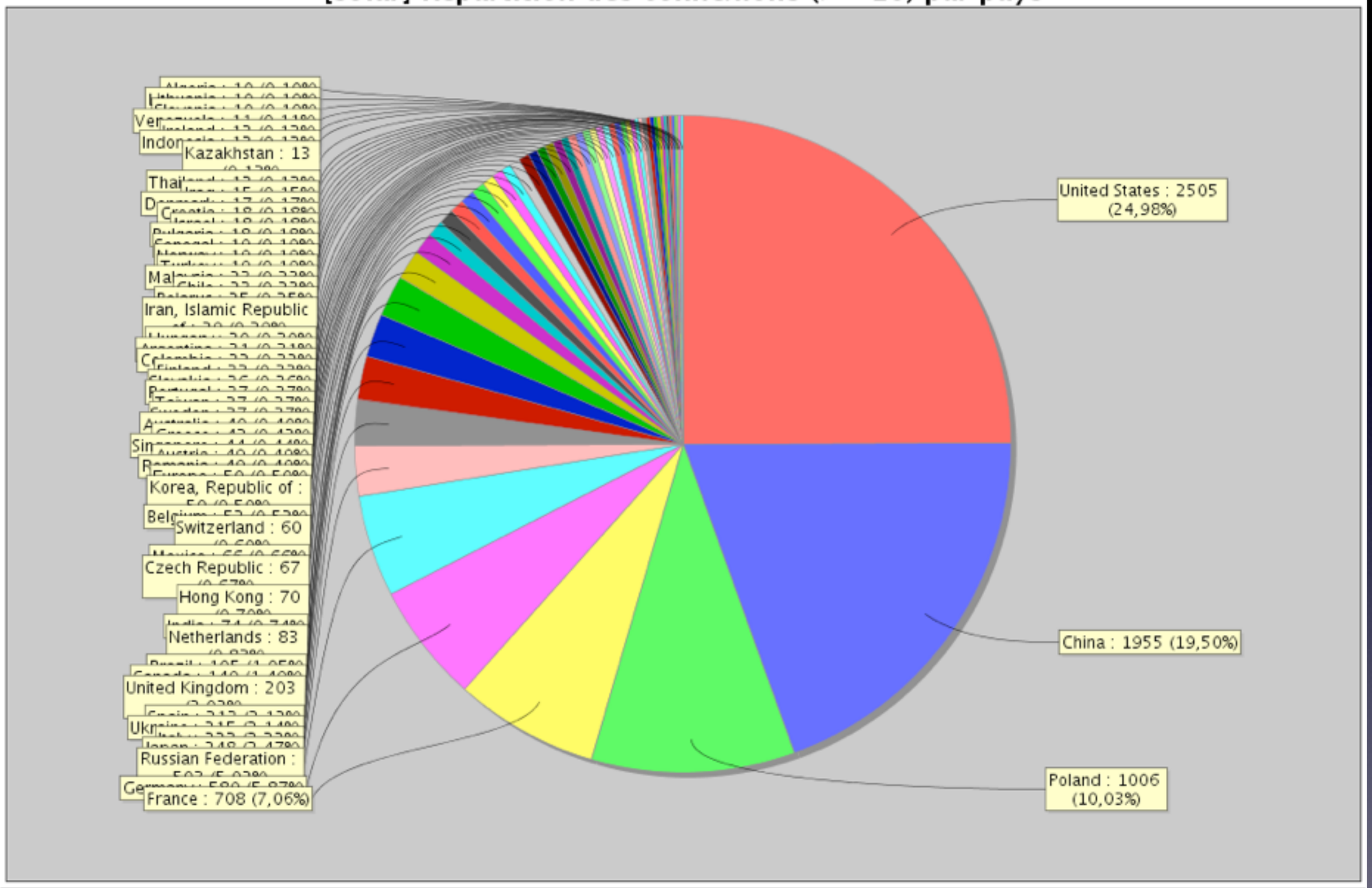
- 58000 requêtes
- 11300 téléchargements par l'interface
- disponibilité des données hors interfaces (ftp, IDL, Py...)







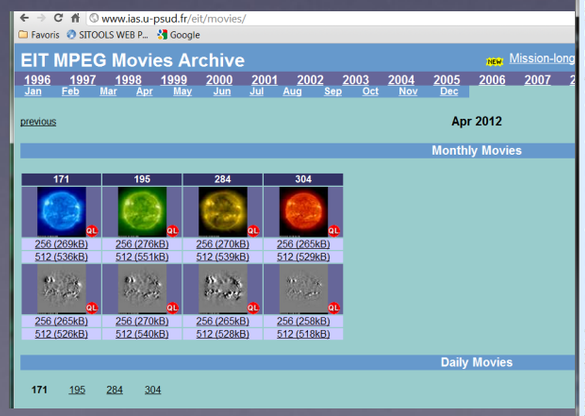
[solar] Répartition des connexions (>= 10) par pays

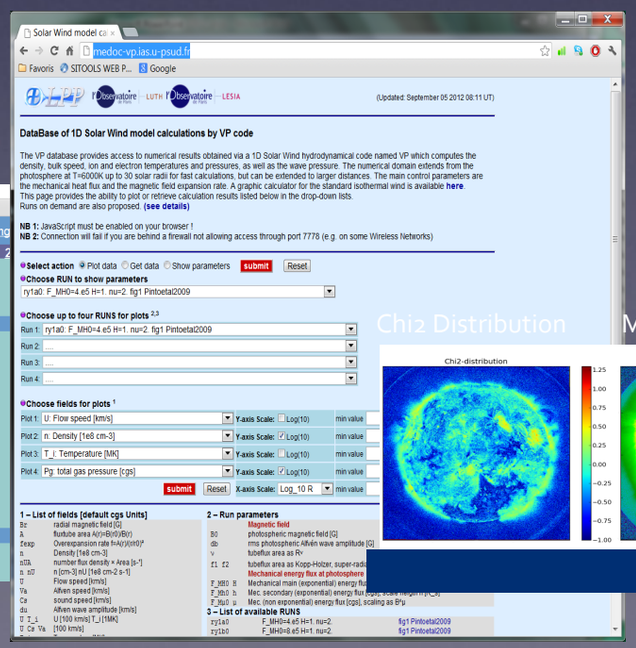


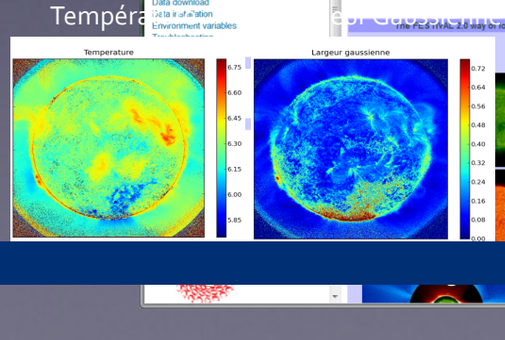
United States China Poland France Germany Russian Federation Japan Italy Ukraine Spain United Kingdom Canada Brazil Netherlands India
Hong Kong Czech Republic Mexico Switzerland Belgium Korea, Republic of Europe Romania Austria Singapore Greece Australia Sweden
Taiwan Portugal Slovakia Finland Colombia Argentina Hungary Iran, Islamic Republic of Belarus Chile Malaysia Turkey Norway Senegal
Bulgaria Israel Croatia Denmark Iraq Thailand Kazakhstan Indonesia Ireland Venezuela Slovenia Lithuania Algeria

Au delà des données

- outil de visualisation combinée de plusieurs instruments
- code de calcul de paramètres du vent solaire
- code de calcul de paramètres physiques de la couronne
- code d'extrapolation du champ magnétique
- ...



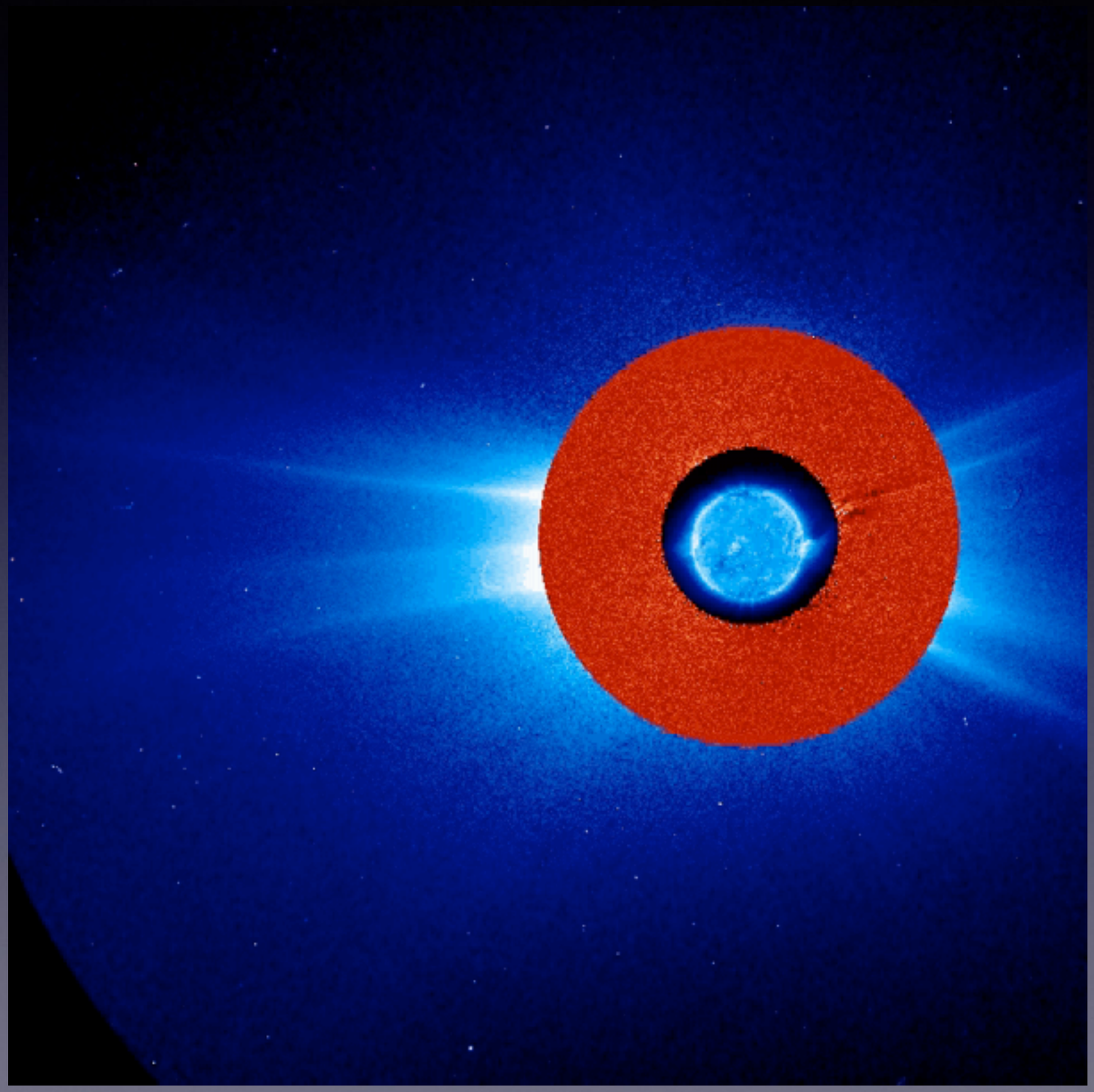




Produits «à valeur ajoutée»

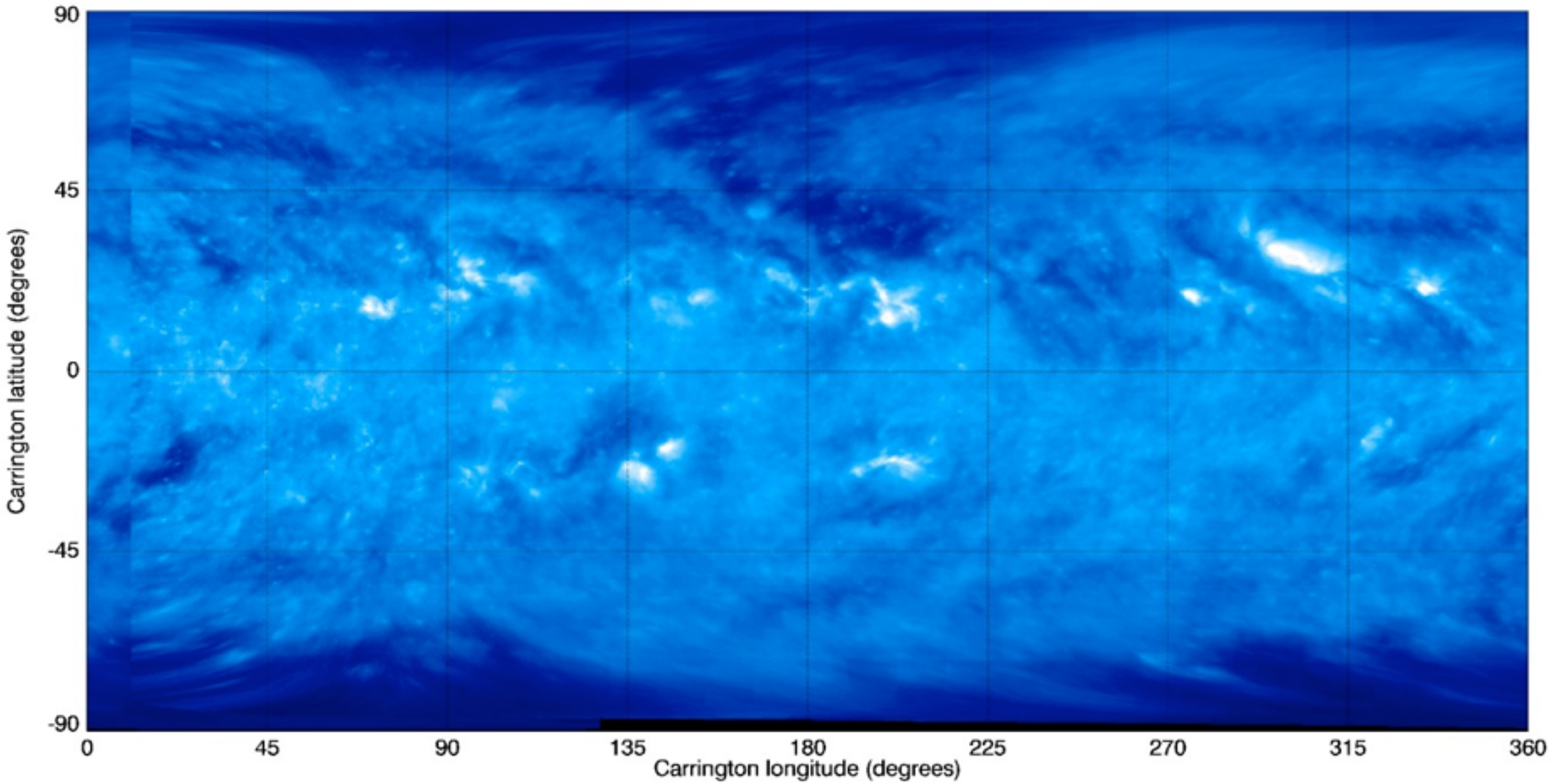
Festival:

un outil pour visualiser une combinaison d'instruments



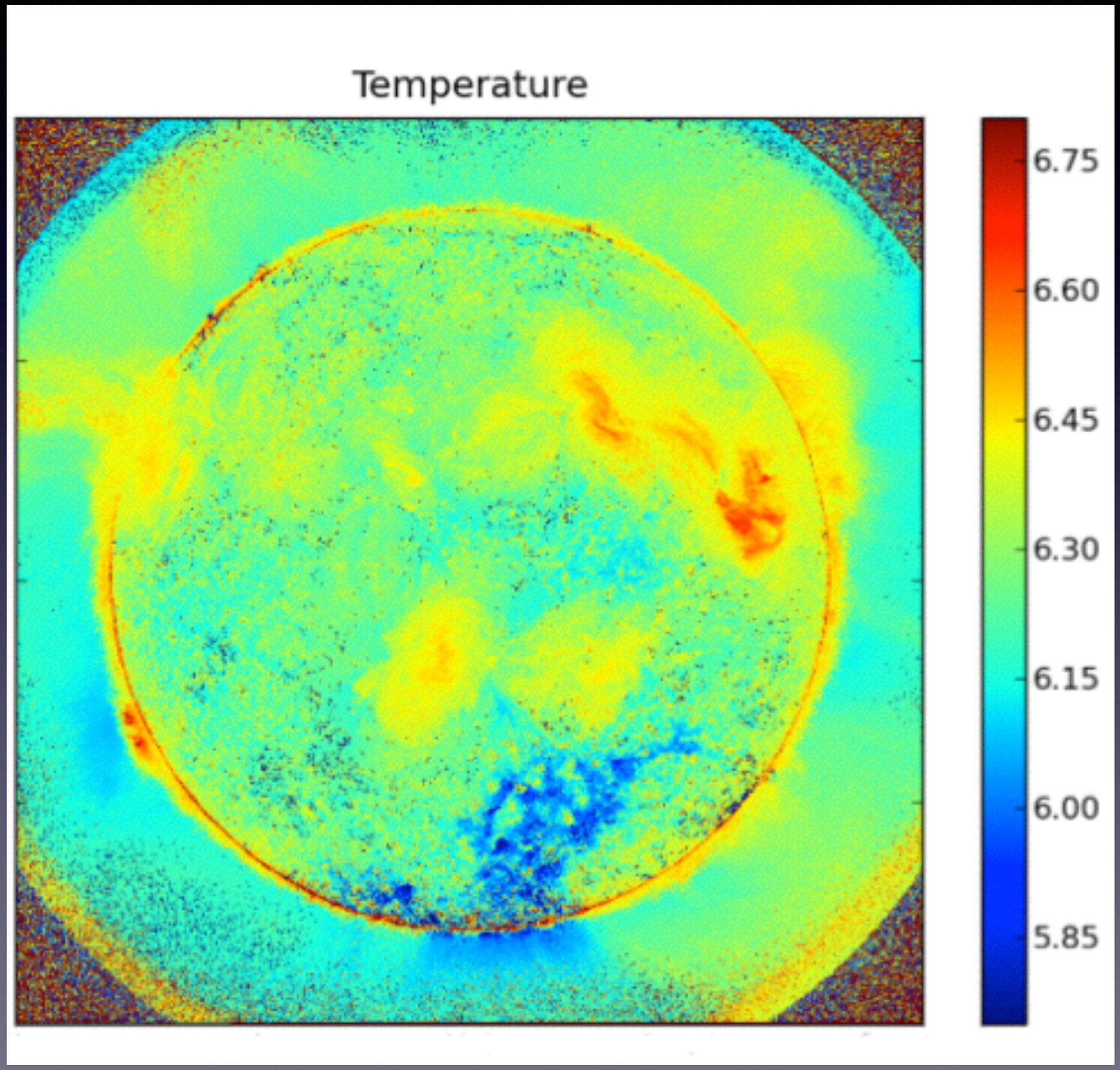
Produits «à valeur ajoutée»

Données synoptiques du Soleil en EUV



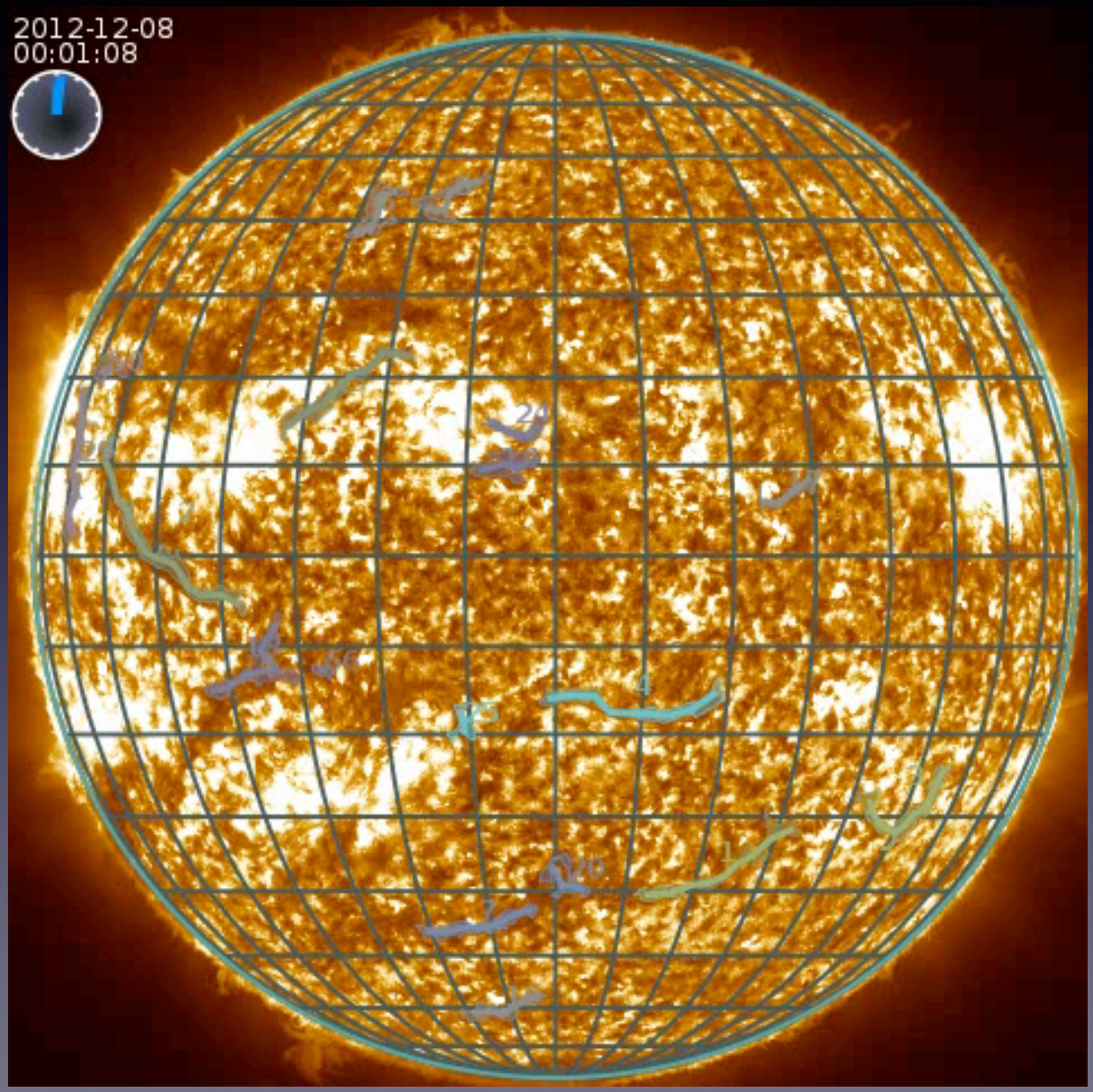
Produits «à valeur ajoutée»

Cartes de paramètres physique de la couronne solaire



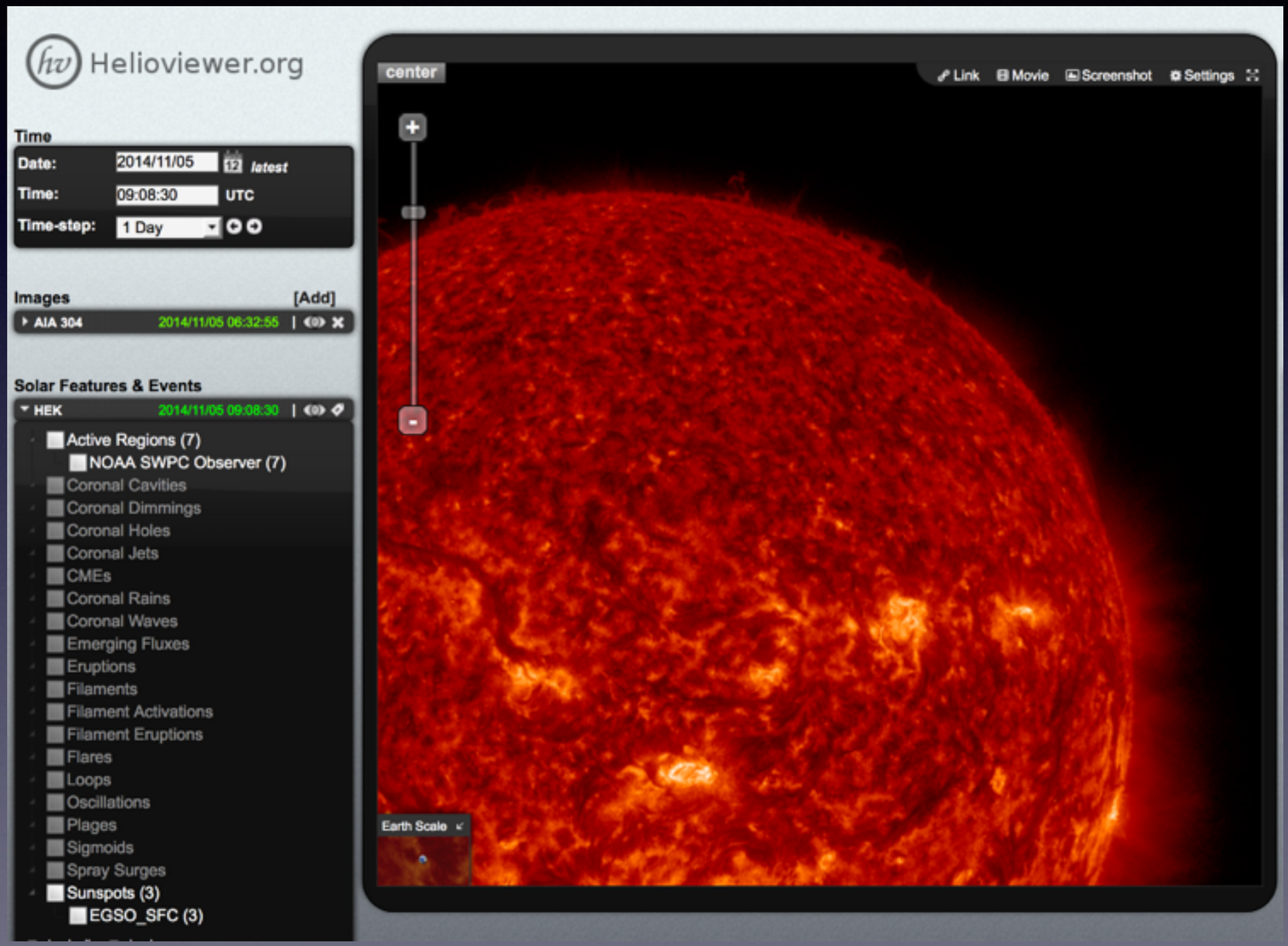
Produits «à valeur ajoutée»

Détection automatique de filaments



Produits «à valeur ajoutée»

Outils de visualisation bis



Nouveau site web

https://idoc.ias.u-psud.fr/MEDOC

Multi Experiment Data & Operation Center

MEDOC is a National Center for Space Solar Physics Data, approved by CNES, in the frame of an agreement between CNRS/INSU, Université Paris-Sud and CNES.

It was initially created (in 1995) and developed as a european data and operation center for the SOHO mission. Later, it got enriched with new data from other space based solar observations from TRACE (NASA), Spirit/CORONAS (Russian Federal Space Agency), STEREO (NASA). It became a national data center in 2012 and in parallel continued to enrich its data contents with AIA/SDO, Picard (CNES) and a close future should see data from Solar Orbiter included in MEDOC (a summary of the instruments -and their main characteristics- which data are available at MEDOC can be found here). MEDOC is more than a repository for data. First, it also operates some instruments observing the Sun (such as SOHO observation campaigns). Second, the scientists from the Institut d'Astrophysique Spatiale, which hosts MEDOC, have a good expertise about most of the instruments which data are available at MEDOC and can provide some valuable information about the use and interpretation of these data (use the contact link below). Finally, some products with added values and other services are also available at MEDOC, such as visualization tools, interpretation tools (plasma parameter diagnostic for example) or software and models to help analyzing and interpreting the data.

MEDOC is also open on the whole scientific community and has for natural partners the Centre de Données de Physique des Plasmas and BASS2000.

Most recent images of the Sun

Data summary

Access to Data

Access to analysis tools and related products

Publications using MEDOC data

SolO@MEDOC

Implication de l'équipe «Physique solaire & stellaire» de l'IAS:

- EUI (coPI + cols)
- PHI (lead col + cols)
- SPICE (cols)

SolO@MEDOC

- Opérations SPICE
- Synergie entre les 3 instruments EUI, PHI et SPICE
- Synergie remote/in-situ
- Synergie avec CDPP

SolO@MEDOC

Opérations SPICE

- MEDOC partenaire dans un consortium IAS/ RAL/UiO pour opérations SPICE?
- MEDOC = outil de visualisation (combinant plusieurs instruments) pour pointage fin SPICE (FESTIVAL, Helioviewer)
- MEDOC = outils d'implémentation des séquences d'observations