



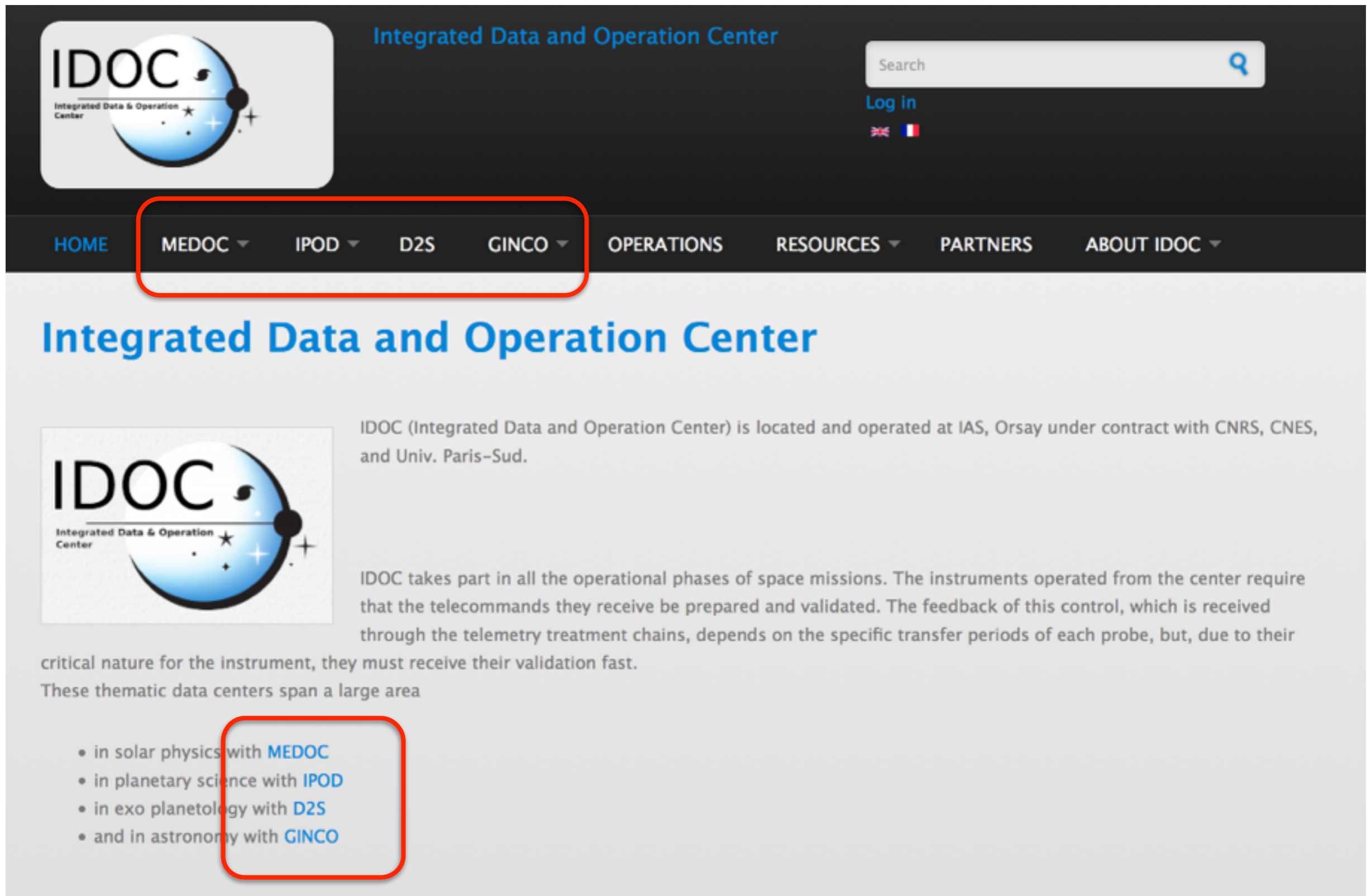
JOVIAL.data@IAS

(WP 6.3)

Frédéric Baudin



IAS Data center = IDOC



Integrated Data and Operation Center

Search

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HOME MEDOC IPOD D2S GINCO OPERATIONS RESOURCES PARTNERS ABOUT IDOC

Integrated Data and Operation Center

IDOC (Integrated Data and Operation Center) is located and operated at IAS, Orsay under contract with CNRS, CNES, and Univ. Paris-Sud.

IDOC takes part in all the operational phases of space missions. The instruments operated from the center require that the telecommands they receive be prepared and validated. The feedback of this control, which is received through the telemetry treatment chains, depends on the specific transfer periods of each probe, but, due to their critical nature for the instrument, they must receive their validation fast.

These thematic data centers span a large area

- in solar physics with MEDOC
- in planetary science with IPOD
- in exo planetology with D2S
- and in astronomy with GINCO

<https://idoc.ias.u-psud.fr/>

What is IDOC?

data

+ operations

+ tools for analysis

+ « value added products »

= IDOC

- Missions archived and distributed: SoHO, STEREO, Solar Orbiter, Planck, Herschell, Mars Express, Corot, [PLATO]

Data archiving@IDOC

- all data at IAS are archived in a building and a copy is in another building
- use of « RAID » systems allowing rapid rebuilding of lost data
- presently about 400 Terabytes of data archived

A data center for JOVIAL

Important to archive and distribute data that we know/use for science

- 1) to know the needs of the users (interface)
- 2) for the « hotline » (through email...)

Which data? To whom?

- What kind of data do we want to distribute?

For ex: Raw data / Instrumental correction applied / Final correction applied

Images / Spherical Harmonics Transform time series

- To whom?

Instrument WG / Science WG / The whole universe

How?

How do we want to distribute the data?

- Through an interface allowing fine selection of data

=> need for metadata describing the data

=> design of the interface from these metadata (some flexibility/reactivity can be achieved but metadata impose constraints)

- Distribution by the « package » (?)

Interface: an example

Corot Asteroseismology Public N2 data

Available products

Light curves

Imagettes

N2 context

Windescriptor

Observational informations

Start date  (DD-MM-YYYY)

End date  (DD-MM-YYYY)

Corot Id

Use semi-colon, comma, or blank character as separators
 All

HD number

Use semi-colon, comma as separators
 All

Magnitude from
(\geq)

Magnitude to
(\leq)

Right ascension from

Right ascension to

Declination from

Declination to

Spectral type from

The spectral type contained in the headers is based on a SED or isochrone analysis of multi-colour broad-band photometry. It should be taken and used with care, especially for faint stars and concerning luminosity classes.

Spectral type to

For more information please read [Deleuil et al.](#) and if needed please contact [Claire Moutou](#).

Luminosity class

Long Run (and Initial Run)

Center

Short run

Anticenter

Run

Questions

- what volume should be archived?
- how many different kinds (levels) of data?
- distributed to whom?
- very important to define metadata (not too late to define the interface in due time)
- distribution by the package?
- do we want to provide tools for analysis?
(visualization?) value-added products? (wind maps?)