

Ulysses COSPIN Data Web-Presentation

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A trip through greek mythology.

1 The structure of the directories

In the main directory “/var/www” are the files located which are needed for the open access page. The main program is “kett.php”. For internal use there is a directory “Kett” with the required files. The directory “Mneme” contains the commented files as well as this commentary “klio.tex”. In the directory “Chaos” are the files to generate the databases “Ithaka”, located in “/var/lib/mysql/Ithaka”. The latter contains all the data files. There exist (at the moment 7.July 2010) six tables in the data base “Ithaka”: the raw data for 2, 10 and 60 min. and the respective “PHA” corrected data. The directory “Argos” contains the file “eurykleia.php” which contains the user information for the mysql database.

2 Requirements

The plots are generated with “jpgraph”, for the interface “php” and “javascript” is needed. The database uses the “mysql”-system. In detail:

“jpgraph” modules:

jpg-config.inc.php
jpgraph.php
jpgraph_log.php
jpgraph_date.php
jpgraph_error.php
jpgraph_line.php

“php” modules (in the PEAR module)
HTML/Template/IT.php

DB.php

For the unicode fonts the installation of unicode fonts
sudo aptitude install ttf-mscorefonts-installer

2.1 The database

All data from the ASCII database are stored in the mysql tables “Ulysses_minxx”, where $xx \in \{02, 10, 60, \dots\}$. The tables “Ulysses_minxx_pha” are a subset of the former, with some additional refinements:

$$\begin{aligned} [250 - 2000 \text{ MeV protons}] &= [320 - 2000 \text{ MeV protons}] - 0.1 * [> 2000 \text{ MeV protons}], \\ [2.5 - 7 \text{ MeV electrons}] &= [E4 - 1el.D1 - D2] - 8 \cdot 10^{-4} - 0.01. \end{aligned}$$

The latter can be accessed by the public, while the former is only accessible for the members of “ieap.uni-kiel.de” allowed.

All flux data are given in “counts/s”, and temperatures in “°C”.

3 The web interface(s)

There are for tables to choose: The integration time interval (**Integration time:**) and the time interval to be plotted (**Time interval:**). The table “Integration time:” consist of radio buttons and the coices are mutually exculsive. In the table “Time interval:” the the periods for the plot can be chosen. It depends on theintegration time if all the choices, like hours or minutes appear, as example for the time interval “27 days” only the checkboxes “Year” and “Month” are visible and can be chosen.

The choices in the tables “Raw rates in counts/s in the energy range:”, “PHA corrected rates (part. adapted to IOC IMP8)”, and “Houskeeping:” are mutually exclusive.

The buttons in orange bar submit the required requests: “Plot” to generate a figure, “Save data” to present them in a separate window, “Close all figures” to close all the opened figure windows (only those), “Help” to get some, “Setting” allow to change some defaults, and “Intranet” to switch to internal page or “Open access page” to go from the intranet to the public website.

To avoid “busy” plots there are restrictions on the period which can be choosen, e.g. for the 2 Min. integration time a 10 hour limit is given. These restriction can be overwritten in the “Settings” page, see below.

3.1 The “Settings” button

When clicked the window stays open until it is closed.

3.1.1 Time interval

The predefined time intervals can be overwritten in the “Settings” window. But be careful, allowing too much data to be plotted can lead to a server crash. This restriction does not apply for the “Save data” button, there all data are printed to the screen.

3.1.2 Plot parameter

The y-scale is automatically chosen, but can be fixed using the checkbox “Y-scale”. The minimum and maximum values of the y-axis can be chosen by the checkboxes with the respective name.

3.1.3 Errorbars

Errorbars are automatically printed in the “Save data” window together with the accumulation time. To plot error bars the button has to be checked. The default is not to plot errorbars.

4 The code

The main file is “kett.php”. It loads (alphabetical order):

alkinoos.js	opens plot window and contains the following functions: alkinoos, chronos, kalypso, pallas, polyphem, zeus.
anatole.php	Table to choose the time interval, contains: only internal routines.
antinoos.php	Defines the foot of the webpage.
arktos.php	Table to choose the houskeeping data.
auge.php	Table to choose the integration time.
dysis.php	Table to choose the flux data (raw and corrected).
eumaios.php	global variables and other definitions
kronos.js	defines some HTML elements for the use in javascript.
laertes.php	header information
laodamas.php	produces the bar to submit the data.
nausikaa.js	generates the parameter the GET-request
ogygia.js	hide the checkboxes in the table to choose the time interval.
rexenor.js	prints the data on screen.
teiresias.js	The help input.
troja.js	Defines the default and hides some elements.

The check boxes and radio buttons are all arranged in tables, also the figure “medusa.png”. At the end is a non-visible table integrated, which defines the parameters to restrict the period to plot:

Alekto	10. hours for the 2 min intergartion time
Megaira	2 days for the 10 min intergartion time
Tisiphone	13 days for the 60 min intergartion time
Erebos	39 days for for the 180 min intergartion time
Thanatos	1 year for for the 14400 min intergartion time
Nyx	18 years for for the 38880 min intergartion time

Glossary

Alkinoos: King of the Phaiaks, father of Nausikaa, brother of Rexenor whose daughter is Arete married with Alkinoos.

Anatole: One of the Horae: sunrise.]item[Antinoos:] suitor in Odysseus palace.

Argos: The old dog of Odysseus, identified him after 20 years and died.

Arktos: One of the Horae: last light.

Auge: One of the Horae: first light

Dysis: One of the Horae: sunset

Eurykleia: Nurse of Odysseus identifies Odysseus in his home washing his feet.

Ithaka: Home of Odysseus (Ulysses).

klio: The muse of heroic epics and historiography.

Kronos: youngest son of Gaia and Uranos, Leader of the Titans, father of Zeus.

Laertes: Father of Odysseus.

Laodamas: Son of Alkinoos and Arete, asks Odysseus for a contest.

Medusa: One of the Gorgones. Looking at her turns the person to stone.

Mneme: The muse of the memory and commemoration.

Nausikaa: Daughter of Alkinoos and Arete, finds Odysseus at the beach of Kerkyra.

Ogygia: Island of Kalypso.

Rexenor: Brother of Alkinoos, father of Arete.

Teiresias: Blind Seer. Odysseus meets him in the Hades.

Troja: like Kiel.