URL: http://cxc.harvard.edu/ciao3.4/get_wave_axes.html
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AHELP for CIAO 3.4

get_wave_axes

Context: sherpa

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Synopsis

Module functions to retrieve the wavelength grids of source and background datasets.

Syntax

```
{Struct_Type | Array_Type} get_wave_axes([Integer_Type])
{Struct_Type | Array_Type} get_wave_baxes([Integer_Type])
{Struct_Type | Array_Type} get_full_wave_axes([Integer_Type])
{Struct_Type | Array_Type} get_full_wave_baxes([Integer_Type])

Error Return Value: NULL

Arguments:

(1) data set number (default 1)
```

Description

In Sherpa parlance, a ``dataspace" is an N−dimensional grid defined by the independent variables of the dataset (i.e., x_i in the expression y = f(x_0, x_1,...,x_(N−1))). Simple examples include the CHANNELS array in PHA datasets and the pixel numbers along each axis of FITS images.

The get_wave_axes() function retrieves the dataspace, or filtered data set axes of the appropriate data set (if no argument is given, the axes for data set 1 are retrieved). Regardless of the current Sherpa ANALYSIS setting, this function returns the dataspace in units of wavelength. Otherwise, the function is similar to get_axes().

The function get_full_wave_axes() is similar to get_wave_axes(), except that get_full_wave_axes() returns the original, unfiltered dataspace in units of wavelength. (And get_wave_baxes() and get_full_wave_baxes() return filtered and unfiltered dataspaces for the background associated with the source data set, in units of wavelength.)

One may display data et al. on the same grid output by get_wave_axes using the Sherpa plotting commands LPLOT DATA et al.

Bugs

See the Sherpa bug pages online for an up−to−date listing of known bugs.

See Also

chandra

guide

sherpa

get_analysis, get_arf_axes, get_axes, get_coord, get_data, get_energy_axes, get_errors, get_filter, get_filter_expr, get_fit, get_fluxed_spectrum, get_ftest, get_metadata, get_photon_axes, get_photon_energy_axes, get_photon_wave_axes, get_qvalue, get_raw_axes, get_record, get_source, get_statistic, get_stats, get_syserrors, get_weights, record, save, write

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