



AHELP for CIAO 3.4

## mdl2latex

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## Synopsis

Output latex table of fitted emission lines and fluxes.

## Syntax

```
mdl2latex([filename])
```

## Description

mdl2latex outputs a latex table containing data extracted from Sherpa models. The table contains all emission lines fit using a gaussian, lorentzian, or delta function model. The wavelength, flux, and flux error is output, along with a list of the data the line was fit to. Finally, if a line identification has been given by the user (using the Sherpa command `name_of_model lineid "line identification"`), this is output as well. See also the [GUIDE thread](#) showing how to use GUIDE with grating data to identify and describe emission lines.

mdl2latex is a GUIDE routine, which must be initialized using the `require("guide")` command in Sherpa. GUIDE uses the optional [ATOMDB](#) database, and this command may fail if the ATOMDB is not available on your system.

## Example 1

```
% after fitting some emission lines
sherpa> require("guide")
sherpa> g1 lineid "Fe XVII"
sherpa> g2 lineid "O VII R"
sherpa> g3 lineid "O VII I"
sherpa> g4 lineid "O VII F"
sherpa> mdl2latex
\begin{tabular}{llllllll}
ModelName & Line Model & Position & Flux & Flux Error & Fit Data &
Label & \\
& & Angstrom & ph/cm$^2$/s & ph/cm$^2$/s & & \\
g1 & normgauss1d & 15.01 & 301.31 & 10.83 & 3,4,9,10 & Fe XVII \\
g2 & normgauss1d & 21.6 & 54.31 & 3.13 & 3,4,9,10 & O VII R \\
g3 & normgauss1d & 21.8 & 10.38 & 1.01 & 3,4,9,10 & O VII I \\
g4 & normgauss1d & 22.1 & 48.91 & 5.13 & 3,4,9,10 & O VII F \\
\end{tabular}
```

Here we output all emission features fit using sherpa with gaussians, lorentzians, or delta functions; in this case, only normalized gaussians (normgauss1d) were used.

## Example 2

```
sherpa> require("guide")
sherpa> mdl2latex("table.tex")
% a file table.tex is written with the mdl data.
```

This outputs all emission features fit using sherpa with gaussians, lorentzians, or delta functions to the file table.tex.

## Parameters

name	type	ftype	reqd
<u>filename</u>	string	input	no

## Detailed Parameter Descriptions

**Parameter=filename** (string not required filetype=input)

*The filename to use when writing the latex table.*

## Bugs

See the [Sherpa bug pages](#) online for an up-to-date listing of known bugs.

## See Also

*guide*

[describe](#), [identify](#), [ionbal](#), [strong](#)

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URL:  
<http://cxc.harvard.edu/ciao3.4/mdl2latex.html>  
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