

fit: fit data

Find the best fit model parameters for the current data by minimizing the current statistic.

Syntax: **fit** <fit method parameters>

The arguments to fit depend on the fitting method currently in use. See the **method** command for details (and for the usage of the USE_NUMERICAL_DIFFERENTIATION option in the user's startup Xspec.init file). Output from the fit command also depends on the fitting method currently in use.

Examples:

Using the Levenberg-Marquardt algorithm, the parameters accepted are the maximum <number of iterations> before the user is prompted, and the <critical delta>, which is the (absolute, not fractional) change in the statistic between iterations less than which the fit is deemed to have converged. If <number of iterations> or <critical delta> is entered through the **fit** command, it also becomes the future default value for the currently loaded fit **method** (ie. Levenberg-Marquardt).

```
XSPEC12> fit
```

```
// Fit with the default number of iterations and critical delta
```

```
// chi-squared.
```

```
XSPEC12> fit 60
```

```
// Fit with 60 as the number of iterations.
```

```
XSPEC12> fit 50 1.e-3
```

```
// Fit with 1.e-3 as the critical delta.
```