



When fitting two spectra simultaneously, is there a way to vary one model, but keep the ratio of normalizations between different models the same?

If, for example, what you want is for this expression to be true:

$$(N_R1 / N_P1) = 2.0 * (N_R2 / N_P2)$$

and your source model definitions are as so:

```
source 1 = xraymond[ray1] + powlaw[po1]
source 2 = xraymond[ray2] + powlaw[po2]
```

(so N_R1 is the normalization of `ray1`, N_P1 is the normalization of `po1`, and so forth), then the parameters need to be related in the following way:

```
sherpa> ray1.norm => 2.0 * po1.ampl * (ray2.norm / po2.ampl)
```

The [help file on linking model parameters](#) contains more information and examples.

FAQ Entry – CIAO 3.4

usly, is there a way to vary one model, but keep the ratio of normalizations between different models the same?