Subject: Re: power law interpolation
Posted by Paul Van Delst[1] on Wed, 17 Sep 2003 17:34:17 GMT
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Steve wrote:
>
> Hi,
> is there any function or routine in IDL to perform a power law
> interpolation (i.e. to find the best power-law exponent) from a set of
> data?

Do you mean a fit (rather than interpolation)?

If so, the simplest is a linear fit. If your relationship is

y = x^a

then

ln(y) = a.ln(x)

so do a linear fit to

Y = a.X

to determine the value of a.

Many other options exist depending on the complexity of your data and/or model. The built in fitting routines include LINFIT, LADFIT, LMFIT, COMFIT, CURVEFIT, POLY_FIT, SVDFIT...etc.etc.

The best (i.e. ease of use, robust) IDL fitting code I've used is Craig Markwardt's MPFIT available from his website.

paulv

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