Subject: Re: SVDFIT docs bug
Posted by steinhh on Thu, 15 Apr 1999 07:00:00 GMT
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In article <7vbtgrj9wt.fsf@weka.phast.umass.edu> Mark Fardal
<fardal@weka.phast.umass.edu> writes:
[..]
> ; WEIGHTS: A vector of weights for Y[i]. ....
[...]
> ;   Gaussian or
> ;   instrumental uncertianties should be weighted as
> ;   Weight = 1/Sigma where Sigma is the measurement
> ;   error or standard deviations of Y. For Poisson or statistical
> ;   weighting use Weight=1/Y, since Sigma=sqrt(Y).

Whee. Maths on acid... :-)

[..]

> According to DejaNews, SVDFIT has been around at least since
> 1995. This raises several possibilities:
[..]
> 2) The people who used SVDFIT all independently figured out the
> problem with the documentation and used correct weights, though
> they neglected to tell anyone else. Well, possibly.

Quite likely, I'd say... At least for those who care about the
errors/chi^2 values. The threshold for posting a message about it
is probably rather high (too much effort..?).

> 3) A lot of erroneous chi-squared values and incorrect fits have
> been made with SVDFIT in the last few years. This seems fairly
> alarming. Wonder if I've read any papers that used this
> routine.

Quite likely, too. On the other hand, a lot of erroneous fits
would have been made with the correct documentation anyway.. :-)

(My humble opinion, based on my experience with how little many
people know/care about the restrictions that apply if you're going
to take the reported chi^2/error estimates at face value. Most
people are happy if they get any number that's within half an
order of magnitude of their chi-by-eye estimate :-)

> 4) Even more alarming: nobody looks at the value of chi-squared.

Well, if it's wrong anyway, ... :-)

Regards,

Stein Vidar