Subject: Re: Doing chi square and/or lognormal fits to 1D data?
Posted by Paolo Grigis on Wed, 26 Jul 2006 07:39:02 GMT
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Well, you mentioned earlier that one of the distributions
you wanted was lognormal... then the logarithms of your data
should be normally distributed --> find the mean & standard
deviation of that distribution (with errors if you like): no
binning required there! Then I guess it should not be too hard
to figure out how to transform the normal distribution in
log-space back to lognormal distribution in linear space...

Ciao,
Paolo

swingnut@gmail.com wrote:
> Thanks for the info. Between the webpages for mpfit and PAN, the
> documentation looked like it wouldn't work with "univariate data".
>
> Yes, you are right, I wasn't particularly clear about what I was trying
> to describe. I've been thinking about this for three days, and you just
> can't reliably use (bin counts,bin centers/edges) as (x,y) and then
> fit. The problem is that bin counts are entirely too sensitive to bin
> width. See e.g,
>
> http://arxiv.org/abs/physics/0605197
> http://www.mathworks.com/products/statistics/demos.html?file
=/products/demos/shipping/stats/cfitdfitdemo.html.
>
> What I want to do is fit for the parameters of the probability
> distribution that would reasonably represent a single column of data,
> without any errors availalbe. I'm thinking that bootstrapping to get
> error estimates is fine, since I have no idea how to generate them. (I
> didn't do the original algorithm, and my advisor has literally no clue
> about the statistics of it -- she drops numbers into a black box and
> applies the standard rules of thumb to interpret the output from the
> black box.) I'll keep cranking away til I figure it out.
>