Subject: Re: Weighted linear fitting?
Posted by rosentha on Wed, 27 May 1998 07:00:00 GMT
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On 27 May 1998 16:30:37 GMT,
Marcus E Engdahl <mengdahl@alpha.hut.fi> wrote:

>
> weights = 1/ystd^2 = [1426.78, 143.309, 72.5688, 574.851]
>
> It seems that the weights for the first and last data point are very much
> bigger than for the middle data points and the line fit practically almost
> ignores the middle observations. Is this a characteristic of the Gaussian
> weighing scheme or am I determining the weights incorrectly?

This sounds correct to me. Remember that this is least _squares_ so
you're actually minimizing [abs(y-y_i)/sigma]^2, so somehow you're trying
to minimize abs(y-y_i) scaled by sigma. Hence you're not ignoring the
middle points as completely as you might imagine from looking at the
values of 1/ystd^2.

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