
Subject: Re: Explanation for keywords of POLY_FIT?
Posted by [Jeremy Bailin](#) on Wed, 29 Oct 2008 13:50:59 GMT
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> I am looking for an explanation for some of the keywords of POLY_FIT.
> I understand SIGMA. But what are YERROR and YBAND in the mathematical
> sense? How are these values calculated? And how does MEASUREMENT_ERROR
> influence these output values?

It's been a while since I used it, so this is just off the top of my head being refreshed by looking at the help page - I wouldn't be shocked if it's wrong:

If your data points are X, Y and the fit is X, YFIT, then YERROR = $\text{stddev}(Y - YFIT)$.

The estimated error on the values YFIT is YBAND.

MEASUREMENT_ERROR only influences these via changes to YFIT, but the form is complicated and depends on the degree of the polynomial... if you need the detailed expression, I'd just follow the NR derivation for linear least squares fit with whatever degree polynomial you need.

-Jeremy.
