
Subject: Curve Fitting Question

Posted by [ftdwh](#) on Tue, 14 Sep 1993 18:01:11 GMT

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The question I have is how to properly use the curvefit routine to fit a function that I am defining. It is as follows:

$$\text{mclat} = A1 + A2*\cos(\text{mlt} + A3) + A4*\cos(2*\text{mlt} + 2*A5) + A6*\cos(3*\text{mlt} + 3*A7)$$

where mclat is the magnetic co-latitude, mlt is an angular representation of the magnetic local time.(This is a Fourier fit)

I have in my data set the mclat and mlt, but I want to find the coefficients A1-A7. Can I do this using the fitting routine in IDL? If I can, what are the steps I need to follow? (As with most manuals they seem to be written for somebody who already knows what they are doing. Along that train of thought can any body recommend a book that might help those of us not fully knowledgeable in IDL)

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