Subject: Re: IDL fitting of piecewise continuous function
Posted by Sasha Singh on Tue, 17 May 2011 19:26:41 GMT
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Thanks Jeremy,

I did look look at MPFIT. I am confused as to how do I define the constraints x<x_m and x > x_m in the function. Sorry I am quite new to IDL.

Sasha

On May 17, 3:21 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
> Craigh Markwardt's MPFIT (and its varients) is most people's preferred fitting routine:
>
> http://www.physics.wisc.edu/~craigm/idl/fitting.html
>
> You define your own function to feed in, so it can have whatever behaviour you want. To ensure continuity, I would recommend re-parametrizing the functional form so that it is continuous by definition. In this, case, A and B aren't actually independent, so calculate B in terms of A by setting them equal at x=x_m, which gives
> B = A x_m^(3/2)
>
> So you're actually fitting:
>
> f(x) = A x_m^(1/2) x^(1/2) x < x_m
> A x_m^(3/2) x^(-1) x > x_m
>
> -Jeremy.