
Subject: Re: mpcurvefit vs. a matlab fitting technique
Posted by [Vince Hradil](#) on Tue, 22 Jul 2008 13:12:47 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 22, 5:55 am, sheilakan...@googlemail.com wrote:
>> But if I change the input even slightly eg [9.4,0.24,0.77,-1.5]
>> I get totally different values out, eg [7.7098139, 0.19333284,
>> 0.60223838, -0.85758867]
>
> Sorry, typo, this should read:
>
> But if I change the input even slightly eg [9.44,0.24,0.77,-1.5]
> I get totally different values out, eg [7.7098139, 0.19333284,
> 0.60223838, -0.85758867]

I have found the mpfit routines to be quite good at minimizing square errors. There are a lot of "tweaks" one can use, such as step-size, to help the routines avoid local minima - take a look at the parinfo keyword.

I will also depend a lot on the equation that you are fitting. Perhaps the variables are slightly "mixed", or the numerical derivatives are ill-conditioned (is that the right term?). If possible, one can also use analytical derivatives with the mpfit functions, which might help.
