Subject: Re: faster minimization needed - maybe mpfit?
Posted by rogass on Thu, 29 Mar 2012 06:45:24 GMT
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On 27 Mrz., 15:38, Craig Markwardt <craig.markwa...@gmail.com> wrote:
> On Tuesday, March 27, 2012 8:28:02 AM UTC-4, chris wrote:
>> Hi Craig,
>> sorry I made several typos. I would also be satisfied with a least
>> squares solution as you can see if you compare function test2 with the
>> previous posts. The function I want to minimize is test2. It doesnt
>> matter for me at this stage whether total(abs(resid)) or
>> total(resid^2) is minimized.
>
>> function test2,p,xval=x,errval=err
>> resid=convol(x-rebin(p[*],size(x,/dim)),[-1.,0.,1.])
>> return,total(resid^2)
>> end
>
>> ENVI> help,im
>> IM INT = Array[512, 7237]
>> ENVI> sz=size(im,/dim)
>> ENVI> im2=im+fix(1000.*rebin((((add=randomn(seed,sz[0])))-mean(add ))/
>> stddev(add),sz))
>> ENVI> help,im2
>> IM2 INT = Array[512, 7237]
>> ENVI> p0=((p0=total(im2,2)/float(sz[1])))-smooth(p0,3,/edge_trunc)
>> ENVI> help,p0
>> P0 FLOAT = Array[512]
>> ENVI> st={x:im2,errval:sqrt(p0)}
>> &res=mpfit('test2',p0,functargs=st,maxiter=100,status=st atus,errmsg=errmsg)
>> &print,status,string(10b),errmsg
>> 0
>> ERROR: number of parameters must not exceed data
>
> Check out the documentation for MPFIT. It expects your user function to return a 1D array of residuals, not the sum of squares.
>
> Craig

Dear Craig,
now it works perfect. Thank you!

CR