Subject: Re: 2-d fitting
Posted by Craig Markwardt on Wed, 12 Nov 2008 07:02:35 GMT
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On Nov 12, 12:25 am, xqinshan <xqins...@tom.com> wrote:
> Hi,
> I have a set of data zi at indepent vaiables (xi,yi). I want to get
> coefficients of a fiting function such as f(x,y)=a*f1(x,y)+b*f2(x,y)
> +c*f3(x,y)+..., f1(x,y),f2(x,y)... are given by myself. If f1(x,y),f2
> (x,y)... are polunomials, we can use sfit or mpfitfun to do it. Are
> there any routins to do it?

Yes, but MPFITFUN is not limited to polynomials, it can be any
function you wish, including multiple variables.

http://www.physics.wisc.edu/~craigm/idl/fitqa.html#multivar

If the user function is a linear combination of known functions, then
SVDFIT can also be used.

Craig

Subject: Re: 2-d fitting
Posted by xqinshan on Wed, 12 Nov 2008 13:29:00 GMT
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>
> Craig

I have tried cof=svdfit([x,y],z,a=a), it returns "SVDFIT: The input X

must be a vector"!

Subject: Re: 2-d fitting
Posted by R.G. Stockwell on Wed, 12 Nov 2008 18:00:06 GMT
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"xqinshan" <xqinshan@tom.com> wrote in message
news:2dec9a37-fe3b-4999-a80b-e47d06c5e13a@v22g2000pro.google groups.com...
> Hi,
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> there any routins to do it?
>
> thanks,
>
> Xqinshan

Just write out the A matrix (in Ax = b, where x is unknown, b is your data,)
and fire it off to the svd routines.

The 'two dimensions' are just columns.
For instance:
1, x,y,xy,x^2,y^2

Cheers,
bob

Subject: Re: 2-d fitting
Posted by xqinshan on Thu, 13 Nov 2008 01:39:10 GMT
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> "xqinshan" <xqins...@tom.com> wrote in message
>
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> For instance:
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>
> Cheers,
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Good! Thank you.
