Subject: L1 Norm?
Posted by Graham on Thu, 20 Oct 2005 15:05:50 GMT
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Hi all,

This is probably really just a question for Craig, but I thought I'd ask here rather than in an e-mail. Is it possible to use mpfit and minimize for something other than the L2 norm? In particular, I'm looking to minimize the L1 norm as I have some outliers that are pulling my fit but are quite difficult to routinely remove.

Thanks
GW

Subject: Re: L1 Norm?
Posted by Craig Markwardt on Fri, 21 Oct 2005 05:26:30 GMT
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"Graham" <GrahamWilsonCA@yahoo.ca> writes:
> Hi all,
>
> This is probably really just a question for Craig, but I thought I'd
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> pulling my fit but are quite difficult to routinely remove.

The short answer is, not it's not possible. The L2-ness of MPFIT is built deeply into the algorithm.

One option is to try the RESDAMP keyword of MPFIT. I don't really use it, but it is designed to suppress residual outliers beyond a certain size that you choose. It does assume that your initial conditions are close enough to the correct ones that most good data points are not flagged as outliers.

Another option is to use a general function minimizer (like perhaps TNMIN) where you can minimize an arbitrary function.

Good luck,
Craig

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

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