
Subject: Re: Gamma Variate Curve Fitting
Posted by [Paul Van Delst\[1\]](#) on Mon, 16 Jun 2003 17:07:11 GMT
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Kate wrote:

>
> I have been trying for a week now to fit data to a gamma variate curve
> using the curve fitting algorithms built into IDL. Every time I use
> CurveFit it tells me my data does not converge and every time I use
> SVDFIT my program crashes and exits out of IDL automatically! I made
> sure that my initial guesses were VERY close to the actual test data I
> am using and I'm still stuck. Does anyone have any experience fitting
> this type of non-linear curve using IDL? If I was using anything else
> I would probably use the simplex method but there doesn't seem to be a
> downhill simplex curve fitting algorithm in IDL. HELP!!!

Go to Craig Markwardt's website and download his MPFIT fitting library:
<http://cow.physics.wisc.edu/~craigm/idl/fitting.html>

I had a similar problem recently (and I was just fitting a relatively simple polynomial [non-integer exponents] but I tried all the usual suspects) and when I simply replaced IDL's CURVEFIT with Craig's MPCURVEFIT all my problems went away...literally. Where CURVEFIT didn't converge, the MPFIT equivalent did. And where CURVEFIT did converge, the MPFIT equivalent gave me a better fit! And when I really screwed up the initial fit coefficient guesses and MPCURVEFIT didn't converge, I got meaningful error output that allowed me to fix the problem.

If I sound gushy about the MPFIT stuff it's because I am - using that code saved me months of work, and I'm not exaggerating.

I hereby nominate Craig and his software for a special award for services to the school...I mean, the IDL community. :o)

paulv

--

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Subject: Re: Gamma Variate Curve Fitting
Posted by [robert.dimeo](#) on Mon, 16 Jun 2003 21:41:40 GMT
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Paul van Delst <paul.vandelst@noaa.gov> wrote in message
news:<3EEDF93F.25F040A2@noaa.gov>...

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> I hereby nominate Craig and his software for a special award for services to the
> school...I mean, the IDL community. :o)

I absolutely positively concur and second this nomination! His MPFIT routines have certainly made my life much easier.

Keep up the great work Craig!

Rob

Subject: Re: Gamma Variate Curve Fitting
Posted by [Andrew Meigs](#) on Wed, 18 Jun 2003 09:20:38 GMT
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And I would like to cast 7 or votes in the ballot for Craig on behalf of my group at JET. Several of us use mpfit every day.

Andy

"Rob Dimeo" <robert.dimeo@nist.gov> wrote in message
news:cb539436.0306161341.b009c4c@posting.google.com...
> Paul van Delst <paul.vandelst@noaa.gov> wrote in message
news:<3EEDF93F.25F040A2@noaa.gov>...

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> I absolutely positively concur and second this nomination! His MPFIT
> routines have certainly made my life much easier.
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> Keep up the great work Craig!
>
> Rob

Subject: Re: Gamma Variate Curve Fitting
Posted by [Craig Markwardt](#) on Wed, 18 Jun 2003 15:34:03 GMT
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"Andy Meigs" <ameigs@jet.uk> writes:

> And I would like to cast 7 or votes in the ballot for Craig on behalf of my
> group at JET. Several of us use mpfit every day.

Thanks, folks. It's really nice to get those compliments.

Alas, my "paying" job takes me away from IDL alot these days but I still pay attention to the newsgroup. I've gotten some feature requests in the past few weeks/months (thanks Kristian), which I hope to act on when I have more time.

Yours,
Craig

Subject: Re: Gamma Variate Curve Fitting
Posted by [faeriepunk](#) on Thu, 19 Jun 2003 13:55:42 GMT
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Craig Markwardt <craigmnet@cow.physics.wisc.edu> wrote in message
news:<ond6hbtn6c.fsf@cow.physics.wisc.edu>...

> "Andy Meigs" <ameigs@jet.uk> writes:
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> Alas, my "paying" job takes me away from IDL alot these days but I
> still pay attention to the newsgroup. I've gotten some feature
> requests in the past few weeks/months (thanks Kristian), which I hope
> to act on when I have more time.
>
> Yours,
> Craig

Thanks Everyone,
Thanks to MPFIT my problems for the most part have been solved! The
U of T MR group thanks you Craig!
