Subject: Re: Reducing a set of curves to a mean curve
Posted by rogass on Mon, 04 Jan 2010 19:02:59 GMT
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On 4 Jan., 16:59, Bernhard Reinhardt
<wirdseltengele...@freisingnet.de> wrote:
> Hi everyone,
>
> I have a set of curves (as x-y-points) which I'd like to reduce to a
> mean curve and some kind of deviation interval. If the curves would
> consist of fixed x-values with varying y-values this would be no big
> deal since I could compute the mean and a deviation measure at every
> x-value. However it turns out that the x-values are not fixed as well.
>
> My first idea was to use poly_fit but the results don't look like I want
> them to and it doesn't solve my problem with the deviation interval.
> Right now I'm thinking of using a fixed x-grid and interpolating the
> data. But before I reinvent the wheel again I want to ask if someone
> here has appropriate code in his library. I think this should be a
> common problem!?
>
> Best regrads!
>
> Bernhard

Hi,
SPLINE_PP or SVDFIT may solve your problems. You might also reform
your x-data into one big data set and also the y-data (take the sort
index from x) to enable a broader set of fitting approaches.

Viel Glueck

CR

Subject: Re: Reducing a set of curves to a mean curve
Posted by Vince Hradil on Mon, 04 Jan 2010 21:03:56 GMT
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On Jan 4, 9:59 am, Bernhard Reinhardt
<wirdseltengele...@freisingnet.de> wrote:
> Hi everyone,
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> I have a set of curves (as x-y-points) which I'd like to reduce to a
> mean curve and some kind of deviation interval. If the curves would
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>
> Best regrads!
>
> Bernhard

Does this help: http://tinyurl.com/yz6hdx3

Subject: Re: Reducing a set of curves to a mean curve
Posted by Bernhard Reinhardt on Tue, 05 Jan 2010 11:58:25 GMT
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Bernhard Reinhardt wrote:
> Hi everyone,
>
> I have a set of curves (as x-y-points) which I'd like to reduce to a
> mean curve and some kind of deviation interval. If the curves would
> consist of fixed x-values with varying y-values this would be no big
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> My first idea was to use poly_fit but the results don't look like I want
> them to and it doesn't solve my problem with the deviation interval.
> Right now I'm thinking of using a fixed x-grid and interpolating the
> data. But before I reinvent the wheel again I want to ask if someone
> here has appropriate code in his library. I think this should be a
> common problem!?

Well, I did now linear interpolation to a fixed x-grid. Easier then I
thought with INTERPOL.

Regards,

Bernhard
