Subject: Re: Numerical integration
Posted by Paul Van Delst[1] on Thu, 15 Nov 2007 20:55:01 GMT
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tarequeaziz@gmail.com wrote:
> Hello Gurus,Pundits& Bosses of IDL,
>
> Need help on 'int_tabulated'. One of the array has duplicate
> elements(=same elements) and thus int_tabulated refuses to move any
> further.
>
> Is there any way out?

Yes. Remove the duplicate x-values and try again.

cheers,

paulv

>
> I tried QROMB, QSIMP etc. I can not use them because to do that I need
> to define a 'function' which they integrate. I can not make a function
> out of my 2 arrays (at least that's what I think).
>
> However,the thing I like about them is that, you can specify step
> size, which cant be done in int_tabulated.
>
> Is there any procedure/function which can handle 1) repeatable
> elements or same elements in array and also 2) can specify step size.
>
> Any help will be greatly appreciated.
>
> Thanks in advance.
>
> Best,
>
> TA

Subject: Re: Numerical integration
Posted by wlandsman on Thu, 15 Nov 2007 21:00:42 GMT
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On Nov 15, 2:58 pm, tarequea...@gmail.com wrote:
> Hello Gurus,Pundits& Bosses of IDL,
>

> Need help on 'int_tabulated'. One of the array has duplicate
> elements(=same elements) and thus int_tabulated refuses to move any
> further.
>
> Is there any way out?

So you have a jump in your function (where Y changes but X stays the
same)?   INT_TABULATED won't like this because it interpolates the
data, and your function is not smooth.   You could try just a
simple trapezoidal integration, such as in the function
http://idlastro.gsfc.nasa.gov/ftp/pro/math/tsum.pro

--Wayne

Subject: Re: Numerical integration
Posted by Jean H. on Thu, 15 Nov 2007 21:37:38 GMT

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tarequeaziz@gmail.com wrote:
> Hello Gurus,Pundits& Bosses of IDL,
>
> Need help on 'int_tabulated'. One of the array has duplicate
> elements(=same elements) and thus int_tabulated refuses to move any
> further.
>
> Is there any way out?

what about cutting your array where you have an X duplicate, then run
int_tabulated on each sub-array, and sum everything up at the end?

Jean