Subject: Re: smooth function and rounding error
Posted by simona bellavista on Fri, 18 Dec 2009 11:19:30 GMT
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thank you for your reply

> y will be of the same type as A, so int, float etc...

yes, anyway I am using double

>> y[i]=total(A[i-width/2:i+width/2-1])/width
>
> I believe you want to divide by width+1, because you are considering

ok, I try also this, but according to the previous link it should be
just width, I am trying to follow closely the prescription they give
for smooth function. can you see any discrepancy between their recipe
and my implementation?

> A[i] in your total. A;so, be sure that width is a float!

actually it was a long(it is an even long),because I thought idl would
cast it automatically to double in division.

now I am casting it explicitly:

y[i]=total(A[i-width/2:i+width/2-1])/double(width)

or

y[i]=total(A[i-width/2:i+width/2-1])/double(width+1)

in both cases I cannot see any difference, relative errors always are
~10^-1

any suggestions/hints/comments?

I forgot to say I am on linux and using idl 7.0.3