Subject: Re: POLY_FIT gives wrong answer !
Posted by steinhh on Thu, 11 May 2000 07:00:00 GMT
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In article <MPG.13848f1b4d7167dd989b0f@news.frii.com>
davidf@dfanning.com (David Fanning) writes:

> [Actually, Bill Thompson wrote:
>
> ..about getting different results with a sorted vs unsorted data
> set...]

Excuse my brevity in quoting - this post is also smuggled out from Goddard, so I'm keeping it short to avoid detection :-)

Although I think Bill's going in the right direction with regard to the POLY_FIT question (he's sitting in the cubicle next to me, so I should know where he's going :-), it doesn't actually explain the original problem as it was *stated* by Henk Schets:

> The only way to do it right is by making other arrays like x2 and y2 and
> doing a poly_fit on it.

Taken at face value, this means he's doing this (referring to Bill's example code):

```
  xs = x(s)
  ys = y(s)
  param3 = poly_fit(xs,ys,2,yfit2)
```

Doing so, I get *identical* results compared to using x(s) and y(s) (whereas the sorted/unsorted versions differ). So, the problem lies somewhere else.

My guess is that Henk is converting either x(s) or y(s) (or both) to *double* precision, which will make the whole computation be performed with double precision..

..or Something Else (tm). Unless we get an actual example (including data) that will show the discrepancy, I'm leaning towards David's general hypothesis that the problem is not in POLY_FIT, but in the application of it..

Stein Vidar