Subject: Re: Avoiding loop stats
Posted by yp on Sat, 20 Jan 2007 03:07:23 GMT
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Hi JD,
I have already written only few the simplest stats functions (stdev, covar, etc) inspired by NASA average.pro function to tackle the dimension issue. I could not spend much time to write e.g., a full regression analysis. I was expecting a clever syntactic way to play with the IDL in-built functions. But it is good to know that I must rewrite the functions.
Thanks for your suggestion,
yas

On Jan 19, 6:11 pm, JD Smith <jdsm...@as.arizona.edu> wrote:
> Yes, recode st_func to work on the full data cube at once. Sometimes
> this is easier said than done. Let's imagine your st_func just
> calculates the standard deviation. Unfortunately, IDL's built-in
> statistics functions are almost all array-unaware, but some things are
> easy to do "by hand":
>
> s=size(data,/DIMEN)
> mean=total(data,3)/s[2]
> stddev=sqrt(total((data-rebin(mean,s))^2)/(s[2]-1))
>
> Higher moments could be built as well. The "threadable" or
> array-aware statistics/math functions (since IDL v5.6, anyway), are
> MIN, MAX, MEDIAN, TOTAL, PRODUCT, SMOOTH, and CONVOL (any other I'm
> missing?).
>
> ITTVIS could invest a small amount of effort to improve this state of
> affairs. For instance, it would be trivial to rewrite MOMENT.PRO to
> take a DIMENSION keyword, such that VARIANCE, STDDEV, MEAN, SKEWNESS,
> KURTOSIS could all be array-aware.
>
> JD- Hide quoted text -- Show quoted text -