Subject: Re: how to speed up multiple regressions?
Posted by Craig Markwardt on Mon, 30 Apr 2001 21:04:11 GMT
View Forum Message <> Reply to Message

Charlotte DeMott <demott@atmos.colostate.edu> writes:

> Hi Craig,
>
> Thanks for taking a look. I was hoping someone would point out to me a very
> obvious blunder I was making. I had high hopes upon reading your message,
> but I think I'm sticking all of this in a loop to compute the significance
> because datadof is NOT a constant for all points in my array. In the first
> loop I included in the original post, data_tau is the decorrelation timescale
> at each data point which is, unfortunately, not constant. T_CVF, as you
> indicated, requires the 2nd argument (datadof in my case) to be a scalar. My
> problem is that datadof isn't the same for all data points.
>
> However, your post make me realize that I can do the regression in a slightly
> different way that will eliminate this problem, and save me loads of time.
>
> So while your suggestion wasn't the fix I was looking for, it jarred my tired
> brain enough to think of another work-around. So thanks!

Okay, so I didn't see that data_tau was variable, sorry :-)

I'm glad you figured out a way to do it. I wanted to mention a
possible way to get around the T_CVF problem. What you can do is
precompute a table of values and then use spline interpolation. Spine
interpolation using SPL_INIT and SPL_INTERP is vectorizable, so it
should be really fast. You can put a lot of samples into your table
so it can be quite precise (you might interpolate in log-log space if
your dynamic range is large).

Craig

--
---------- ----------
Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
---------- ----------