Subject: Re: Random sample selection without replacement (using IMSL_RANDOM_SAMPLE)
Posted by Michael Galloy on Fri, 21 Oct 2011 16:14:23 GMT
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On 10/21/11 3:59 AM, Patrick Leinenkugel wrote:
> Hello,
> I like to generate a random selection (eg. 5 samples) of a population
> without replacement from a one dimensional array with n samples (eg.
> n=100). I tried to use the IMSL_RANDOM_SAMPLE function which works
> fine if I have (k,n) dimensional arrays (k variables (e.g k=2), n
> samples(e.g n=100)).
> For one dimensional arrays, however, the command
>
> samp = IMSL_RANDOM_SAMPLE(5, pop)
>
> results in the error message: "IMSL Error: IMSL_RANDOM_SAMPLE:
> Terminal error: STAT_BAD_NROW_NSAMP: NROW = 1 and NSAMP = 5. Since
> there is only one invocation of this function, NROW must be greater
> than or equal to nsamp."
>
> Can anyone tell me what I do wrong or has a nother way to easily
> generate random selection without replacement.
> Thanks,
> Patrick

I use my own routine, MG_SAMPLE. Here is the code:

http://docs.idldev.com/idllib/analysis/mg_sample.pro

Docs here:

http://docs.idldev.com/idllib/analysis/mg_sample.html

It works by creating a random array of size n and finding the indices of the smallest k elements (using a HISTOGRAM approach instead of SORTing the entire array).

Mike
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