Subject: Resampling from cumulative probability distribution
Posted by Klemens on Sat, 26 Jan 2008 14:09:52 GMT
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Hallo together,

I am computing a bootstrap analysis where the resampling routine from a cumulative probability distribution needs the most cpu time. May be you have some ideas how to eliminate the loop and speed up the routine ...

```
function get_bootstrap_pdf, np, cdf

zz =  randomu(S, np)                    ; np is the number of
samples

cdfa = cdf[0:n_elements(cdf)-2]          ; cdf is the cumulative
probability distribution
cdfb = cdf[1:n_elements(cdf)-1]

b = fltarr(n_elements(cdf))              ; b will be the
resampled distribution
b[*] = 0.00

for i = 0, n_elements(cdf)-2 do begin                    ;
loop through all bins
  index = where((zz ge cdfa[i]) and (zz lt cdfb[i]))
  if (max(index) ge 0) then begin
    b[i] = n_elements(index)
   endif else begin
    b[i] = 0.00
  endelse
endfor

total_b = total(b)
b = b / total(b)

return, b

end
```

Thanks for your help in advance !

Klemens