Subject: Avoiding multiple FOR loops
Posted by fgg on Fri, 18 Mar 2011 22:47:27 GMT
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Hi there,

I'm writing a program for regression model selection by exhaustive search (based on the RMSE, for example). The code is relatively simple, but as the maximum size of subsets to examine increases, processing speed decreases significantly. Below is the piece of the code that deals with subsets of 6 variables. Is there a better way of doing this? i.e. a way of avoiding the multiple FOR loops, which are being used to calculate the RMSE for all possible combinations.

```
if (nvar eq 6) then begin
        index = -1l
        for i=0l,maxn-6 do begin
            for j=i+1,maxn-5 do begin
                for k=j+1,maxn-4 do begin
                    for l=k+1,maxn-3 do begin
                        for m=l+1,maxn-2 do begin
                            for n=m+1,maxn-1 do begin
                                index = index +1
                                x = [data[i,*],
data[j,*], data[k,*], data[l,*], data[m,*], data[n,*]]
                                coef = regress(x, y,
const=const, yfit=yfit)
                                rms[index] =
sqrt(total((y-yfit)^2)/n_elements(y))
                            endfor
                        endfor
                    endfor
                endfor
            endfor
        endfor
        ... [+ statements]
endif
```

Thanks!