
Subject: Re: Sum to Arrays

Posted by [mole](#) on Tue, 23 May 1995 07:00:00 GMT

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Stein Vidar Hagfors Haugan (steinhh@amon.uio.no) wrote:

: In article <moleD8uArz.DFG@netcom.com>, mole@netcom.com (Aaron Birenboim) writes:

: [...stuff deleted...]

: |>

: |> OK.... here's a tougher one to vectorize...

: |>

: |>

: |> I want CENTROIDS, FAST!!! I'm stuck with :

: |>

: |> x = fltarr(m)

: |> for i=0,n do x = TOTAL(y(*,i) * findgen(n+1))

: |>

oops... I meant:

x = fltarr(n)

for i=0,n-1 do x(i) = TOTAL(y(*,i) * findgen(m))

get the idea? Weight each column of y by its index and then total

also... I'm trying to be portable between PV-Wave and IDL, so I cannot use the 2 argument total. (I just found that out)

: Anyway, here are centroids for you:

: Given e.g., l(x,y), an M x N array:

: X = REBIN(REFORM(FINDGEN(M),M,1,/OVERWRITE),M,N,/SAMPLE) ; Gives you X(x,y)

neat. I doubt I'd have come up with that.

: CTROIDS_X = TOTAL(l*X,1)/TOTAL(l,1) ; Gives an array of the centroids

: ; (the X centroid at each y index.)

: CTROID_X = TOTAL(l*X)/TOTAL(l) ; Gives the X Centroid coordinate

: ; of the whole array.

: ;----- or, for Y centroids...

thanks.

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