Subject: Simple? problem
Posted by Ivan Valtchanov on Tue, 09 Apr 2002 15:49:17 GMT
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Hi,

I have a small problem concerning a good programming techniques, so here it is:

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pro test,nx,ny,image

; Make some random X and Y arrays
x = randomu(s,1000)
y = randomu(s,1000)

; now give arbitrary weights for each point
w = randomu(s,1000)/100.0
; take the square
w2=2.0*w*w

; I want to construct a 2-D image with a specified dimension
image = fltarr(nx,ny)

; I want to sum up the contribution of each point as Gaussian
; with width=w to the image pixels

for i=0, nx-1 do begin
 xgi = i/float(nx)
 dx = x-xgi
 for j=0, ny-1 do begin
  ygi = j/float(ny)
  dy = y-ygi
  dr2 = dx*dx+dy*dy
  arg = -dr2/w2 > (-20.0) ; to avoid overflows
  image[i,j] =  total(exp(arg))
 endfor
endfor

return
end
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```

This is obviously quite unoptimised - two cycles etc. Do you have any ideas, references or do you know if it is already solved in IDL?

I have looked for something similar in David Fanning pages and IDL astronomical libraries but I couldn't find something to adapt, maybe I have missed it?

Thanks.

Ivan V.