
Subject: hist_2d, contour

Posted by [Nicolas Aunai](#) on Wed, 27 May 2009 09:25:17 GMT

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Hello !

I have a problem trying to contour the return value of HIST_2D.
my code is the following :

```
tstudy = 8.0  
window,2,retain=2
```

```
bin  = 0.05
```

```
; ec(*,0) is  
; <Expression>  FLOAT  = Array[42511]
```

```
eci  = MIN(ec(*,0)) + bin*indgen(1+(max(ec(*,0))-min(ec(*,0)))/bin,/long)
```

```
;eci is FLOAT  = Array[131]
```

```
; ec(*,tstudy) is :  
;<Expression>  FLOAT  = Array[42511]
```

```
ecf  = MIN(ec(*,tstudy)) +  
      bin*indgen(1+(max(ec(*,tstudy))-min(ec(*,tstudy)))/bin,/long )
```

```
; ecf is  FLOAT  = Array[134]
```

```
distr = HIST_2D(ec(*,0),ec(*,tstudy), bin1=bin, bin2=bin)
```

```
;the returned array distr is :  
; LONG  = Array[132, 137]
```

; and of course, the dimensions of the three arrays are incompatible so

; the contour doesn't work...

```
distr(where(distr eq 0)) = 1.
```

```
nlevels = 100
lsteps = (max(alog10(distr))-min(alog10(distr)))/(nlevels -1)
ulevels = min(alog10(distr)) + lsteps*indgen(nlevels)
loadct,13,ncolors=nlevels,/silent

;lev = min(alog10(distr)) +
0.05*indgen(1+(max(alog10(distr))-min(alog10(distr)))/0.05,/ long)

contour, alog10(distr), eci, ecf, c_colors=indgen(nlevels,/long),
levels=ulevels(1:*), /fill, background=255, color=0,$
    title="Total Energy",$
    position=[0.1,0.1,0.8,0.9],xtitle='Initial',ytitle='Final (t =
'+strcompress(tstudy*0.005*500,/r)+' )',xstyle=1,ystyle=1
```

Would someone have an idea of what's my mistake ?

Thx a lot
Cheers

Nico
