
Subject: black wrong multicolor map

Posted by [Chriss](#) on Thu, 28 Nov 2013 22:45:32 GMT

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Hi guys!

the goal of my work should be to show, as a result, a multicolor map about 2D matrix within each pixel's value is the percentage fitting error obtained by:

$$100 * (\text{SQRT}((\text{TOTAL}(y_{\text{Curr}} - y_{\text{fit}}))^2 / y_{\text{Curr}}))$$

where yCurr and yfit are two curves within nested-for loops. Each pixel has a different error but my final map is monochrome....that meaning it's completely wrong! Where are the mistakes?

this is my code,

thanks in advance

```
FORWARD_FUNCTION muskfunct, X, A
```

```
t=TR/NSrr
```

```
t=t*frm
```

```
x=t
```

```
num_x=N_ELEMENTS(x)
```

```
ERR=FLTARR(num_x)
```

```
w=FLTARR(num_x)
```

```
w[*]=1.0
```

```
PARINFO=replicate({value:0.D, fixed:0, limited:[0,0], limits:[0.D,0]}, 3)
```

```
parinfo[0].limited(*) = [1,1] ;S0 limits(S0>0)
```

```
parinfo[0].limits[0] = 0.0
```

```
parinfo[0].limits[1] = 1000.0
```

```
parinfo[1].limited(*) = [1,1] ;0<f<1
```

```
parinfo[1].limits[0] = 0.5
```

```
parinfo[1].limits[1] = 1.0
```

```
parinfo[2].limited(*) = [1,1] ;T1 limits(T1>100)
```

```
parinfo[2].limits[0] = 100
```

```
parinfo[2].limits[1] = 4000.0
```

```
A0=[60.0, 1.0, 1000.0]
```

```
parinfo[*].value = A0
```

```
T1map=FLTARR(dx,dy)
```

```
FitErrMap=FLTARR(dx,dy)
```

```
fitErrors=FLTARR(num_x)
```

```
T1values=FLTARR(num_x)
```

```
S0values=FLTARR(num_x)
```

```
fValues=FLTARR(num_x)
```

```
for i=0,dx-220 do begin
```

```
  for j=0,dy-220 do begin
```

```

y=REFORM(lm_final1[i,j,*],num_x)

for t=0,num_x-1 do begin
  T0=t
  yCurr=y
  IF (t ne 0 ) THEN yCurr[0:T0]=-y[0:T0]
  A0=[y(num_x-1), 1.0, 1000.0]
  A=mpfitfun('maskfunct',x, yCurr, ERR, A0, PARINFO=parinfo, WEIGHTS=w,YFIT=yfit,
BESTNORM=error,/QUIET)

  fitErrors[t]=error
  S0values[t]=A[0]
  fvalues[t]=A[1]
  T1values[t]=A[2]
  yCurrT=TOTAL(yCurr[0:num_x-1])
  yfitT=TOTAL(yfit[0:num_x-1])
endfor
min=MIN(fitErrors,idmin)
T1 = T1values[idmin]
f=fvalues[idmin]
S0=S0values[idmin]
yfit=maskfunct(x,[S0,f,T1])
T1map[i,j]=T1
RMSE=100.*sqrt(((yCurrT-yfitT)^2)/yCurrT)
FitErrMap[i,j]=RMSE
endfor
endfor

iimage, T1map, TITLE='T1map'
stop1=sys_time(1)
iimage, FitErrMap, RGB_TABLE=39, TITLE='FitError map'

```
