
Subject: Re: Optimization "AMOEBA"

Posted by Nicki on Fri, 18 Sep 2009 13:05:13 GMT

[View Forum Message](#) <> [Reply to Message](#)

O thanks so much for that... Just tried it also with my more complicated function and it works... But now it's getting tricky:) I have a 2nd variable... this is set to 60 at the beginning and should vary plus/minus 30. However my IDL cannot do it, it can only do scale 1, everything that is more than one does not work out.....

That's the code:

```
FUNCTION FUNC, P
```

```
z=120.0
```

```
N_rows=3.0
```

```
d_fov=67
```

```
mu=438.689
```

```
R_tot=1.5
```

```
a_max=30
```

```
N=P[1]
```

```
R_i=P[0]
```

```
;a_max=P[2]
```

```
x=N*tan(a_max/2.0*!pi/180.0)*1.1/N_rows/!pi-1.0
```

```
a=2.0*asin((1.0/x+1.0)*d_fov/2/z)*180/!pi
```

```
d=sqrt(R_tot^2-x^2*(R_i)^2)/(x+1)-alog(2)/mu*tan(a/2*!pi/180 )
```

```
S=N*(1+x)^2/16/x^2/z^2*(d^2+2/mu*d*tan(a/2*!pi/180)+2/mu^2*( tan(a/2*!  
pi/180))^2)*100
```

```
RETURN, -S
```

```
END
```

```
R=AMOEBA(1.e-1, SCALE=[0.50, 30.], P0=[0.55, 60.],  
FUNCTION_VALUE=fval)
```

```
;Check for convergence:
```

```
;IF N_ELEMENTS(R) EQ 1 THEN MESSAGE, 'AMOEBA failed to converge'
```

```
; Print results:
```

```
PRINT, 'R_i, N:', r, $
```

```
    'function value: ', fval[0]
```

END
