
Subject: Re: Another MPFIT question

Posted by [Vince Hradil](#) on Sun, 12 Oct 2008 02:02:58 GMT

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

On Oct 11, 4:35 pm, MichaelT <michael.theus...@googlemail.com> wrote:

> Today I discovered MPFIT and I am so excited how well it works (many
> thanks Craig!).
>
> I ran into one problem, however, which I was not able to solve. Maybe,
> there is a simple solution.
> Among all the parameters I have four whose sum must not be larger than
> a certain value:
>
> $0 < c1+c2+c3+c4 < 1$.
>
> All four parameters may vary between zero and one which I implemented
> using .limits and .limited. But, how do I implement the additional
> constraint? Any ideas? It may be too obvious for me to see...
>
> Thanks, Michael

How's this

re-parameterize our problem to -

$p[0]=c1$, $p[1]=c1+c2$, $p[2]=c1+c2+c3$ and $p[3]=c1+c2+c3+c4$

then limit all these to $[0,1]$

so in the function:

```
function myfunc, x, p
```

```
c1 = p[0]
```

```
c2 = p[1]-p[0]
```

```
c3 = p[2]-p[1]
```

```
c4 = p[3]-p[2]
```

```
return, somefunctionof(c1,c2,c3,c4)
```

```
end
```
