Subject: Re: Amoeba and Tied Parameters
Posted by Dick Jackson on Sat, 14 Jan 2017 15:43:48 GMT
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On Friday, 13 January 2017 20:06:36 UTC-8, Maryam wrote:
> Does anyone know how I can tie two parameters together when using Amoeba so that no matter how much they are changed, they are always equal? In other words, I am looking for something similar to .TIED in MPFIT but when using AMOEBA instead.
>
> Thank you,
> Maryam

Hi Maryam,

If you are minimizing a function of 'n' parameters, and you want to tie one of them to be identical to another one (or computed as a function of another one), then you really only have 'n-1' parameters, making your minimization problem one dimension smaller.

For example, if your function to be minimized were originally computed based on p[0], p[1] and p[2], then you decide to tie p[2] to be equal to p[0], simply replace each p[2] in the function by p[0], and adjust your use of P0, SCALE, SIMPLEX, and the result of FUNCTION_VALUE to work with an 'n' of two rather than three.

Similarly, for example, if you knew that you want to tie p[2] to always be the square root of p[0], in your function you could compute it based on p[0], p[1] and a variable you compute as p2 = Sqrt(p[0]).

I hope this helps you out!

Cheers,
-Dick

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