
Subject: Re: Amoeba function

Posted by [b_gom](#) on Thu, 19 Nov 2009 23:25:19 GMT

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I suspect most readers will not have the time to go through your code and optimize it for you :), in fact I gave up trying to do a quick read through to find out what the form of the equation is you are trying to minimize. I can give you some of my experience with Amoeba, however. Amoeba cannot and does not guarantee that it will find the global minimum. The amoeba that the function is named after crawls its way down the slope of your minimization function until it finds a hollow to settle in. The depth of this hollow is related to the characteristic length scale that you tell Amoeba to use, and the starting guess for the parameters. In practice, you ultimately bear the responsibility of judging whether Amoeba has found the best of all possible minima.

Amoeba is a fast and useful routine for minimizing ugly complicated data sets or functions that do not have analytical derivatives. If you have a simple equation that you are trying to fit to a data set (even if it doesn't have analytical derivatives), you might find other fitting routines like MPFIT\MPFITFUN more predictable.
