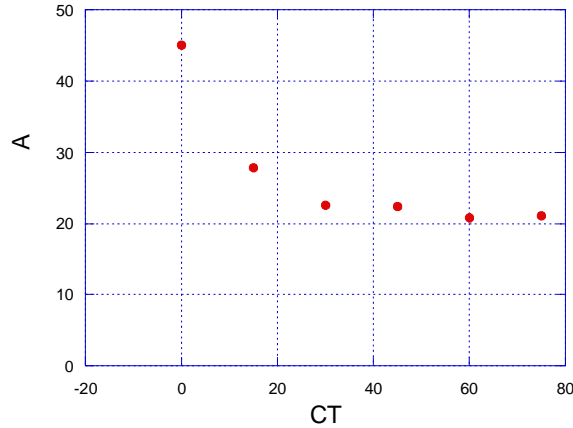


Hello,

I'm having a problem to fit a curve for my data points.

A	CT
45	0
27.8	15
22.6	30
22.4	45
20.8	60
21.2	75



I must work with this equation to fit the data.

$$\frac{1}{A} = \frac{1 - r/r_{max}}{A_0} + \frac{r/r_{max}}{A_1}. \quad (1)$$

I know the value of A_0 , in this case is 45, the first value of A in the table. The variable r is related to CT according this equation

$$\frac{r}{CT - r_{CBP}} = K(1 - Nr) \left[\frac{1 - Nr}{1 - (N-1)r} \right]^{N-1} \quad (2).$$

where $CBP = 48500$ and $r_{max} = \frac{1}{N}$. I can solve this equation numerically if I know the values of N and K .

I have to do the routine:

- 1) First, I guess the values of N , K and A_1 .
- 2) With this values I can generate a table for x in function of CT .
- 3) I compare the points of the table with my inicial data of A and CT using least squares fitting.
- 4) If the values is not good, the program guess others values of N , K and A_1 to find the best fit.
- 5) In the final of the fit process I need to obtain the value of N , K and A_1 with the related erros, for exemplo, $K = (1.1 \pm 0.1) \times 10^5$.

Is it possible to do? I'm using Mathcad 15.

Other people to this in Matlab and obtained the following values:

$$K = (1.1 \pm 0.1) \times 10^5$$

$$N = (0.9 \pm 0.2)$$

$$A_1 = (20 \pm 2)$$