Subject: Fitting curve to data
Posted by liam.steele on Wed, 14 Sep 2016 14:23:06 GMT
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Hi all,

I am trying to it a curve to some data points, and have managed to get confused with all the interpolate and spline IDL routines (and more importantly, can't seem to get any of them to work).

As an example, I have a range of depths (in cm) and a value of something at each depth, e.g.

depth = [0.01, 0.1, 0.4, 0.9, 3.5, 14.5, 57.9, 231.7, 926.8]
value = [2.1, 2.1, 1.9, 1.8, 1.3, 1.0, 0.8, 0.5, 0.4]

What I want to do is fit a curve to the data as best I can (the curve doesn't have to go through each point exactly), on a finer set of depths, e.g.

interp_depth = findgen(1001)

I've tried things like:

interp_val = spline(value,depth,interp_depth)
interp_val = interpol(value,depth,interp_depth,/spline)

Can anyone offer any help? Is there some sort of cubic least-squares routine or something I should use? I can get linear interpolation to work, but was wanting something more 'realistic'.

Cheers!