**Logger Pro Best-Fit Instructions with Uncertainty**

1. Open Logger Pro

2. Enter your data into the X column.

3. Rename the X column to your independent variable. Double-click the name. Write in the correct variable name, INCLUDING A SHORT NAME AND INCLUDING UNITS.

4. Do the same for your Y column for your dependent variable. INCLUDE UNITS.

5. Your points are beginning to show up on your graph. In order to see them better, choose the Autoscale button on the toolbar. This will change the scale on your x-axis and y-axis. It looks like this:

6. If you have uncertainty that is different for each point, you have to enter a new column. On the top, choose “Data” -> “New Manual Column.” Title this column “Uncertainty.” Choose “Done” and enter in the uncertainty for each point.

7. To add uncertainty bars, double-click on the heading for your vertical column. Check the box next to “Error Bar Calculations” and then choose “Use Column” Choose the column titled “Uncertainty”

7. Double-click on the graph. Under “Graph Options,” check “Point Protectors” and uncheck “Connect Points.” Then, add a title for your graph in the box at the top left.

8. Make a best-fit line using this button.

First, try a proportional fit:

Click “Try Fit” and then “OK”

9. Does your best-line fit go through all of your error bars? If not, then try the next fit. Always use the **simplest** fit that goes through all of your error bars.

Note: Do NOT use cubic, quartic, quintic, etc. These are not “simple” fits because they are mathematically very complicated.

10. Lastly, simplify your output. **Double-click** on the dialog box that looks like this:

and UN-CHECK “Show Uncertainty”

then click “OK”