PARTICLE SIZE (PTXSIZE) v. 1.0

AN EXCEL MACRO TO CALCULATE PARTICLE-SIZE DISTRIBUTION FROM SIEVE ANALYSIS OR WOLMAN PEBBLE COUNTS

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This macro has been protected to prevent inadvertent modification. The password is "Wentworth".

TO ABORT PROGRAM AT ANY TIME SIMULTANEOUSLY DEPRESS THE COMMAND (CLOVERLEAF) AND PERIOD KEYS.

Unless otherwise indicated, clicking "CANCEL" in a dialog box will abort the program.

To carry out a particle-size analysis, set up the worksheet by running **SizeDistribution**. This will first ask you whether you want a sieve analysis or a pebble count. You will then need to specify in phi units the lower bound of the largest size class to be used in the analysis. If it is a sieve analysis, you will be asked whether there was a split used for determining the < 2mm fraction. The program will then set up the worksheet, entering all appropriate formulas.

After the worksheet has been set up, enter either the sieve weight or the number of pebbles in the size category. (The numbers in columns A and B are the lower bounds of the size classes.)

When you are finished entering data, press 'command-=' to cause the worksheet to be calculated.

The completed worksheet will display the % of the sample in each size category, and the cumulative % less than the size indicated in columns A and B.

After the worksheet has be calculated, run **SizeParameters** in order to calculate D90, D84, D65, D50, D35, D16, and D10. These are calculated using log-normal interpolation between the size categories. Note that the program cannot interpolate between categories where one of the categories has 100% or 0% as its cumulative value (the inverse normal function is   there).

To create a plot of either ø vs cum % or log mm vs cum %, run the **PlotSizeDistribution** macro.

For a reminder of the ø equivalents of mm values, run the macro
PhiEquivalents. Close that worksheet after inspecting it.