



Figure 3. Toolbox for Analysis of Flexural Isostasy (TAFI) graphical user interface (GUI). When viewed in the PDF of this paper using Adobe Acrobat or Reader, clicking on green circles activates a dynamic figure demonstrating GUI features. These include (1) available plate geometry (pull-down menu); (2) available load geometry (pull-down menu); (3) changing the flexural rigidity (slider); and (4) changing the load magnitude (slider). Clicking on the red circle resets the figure to its initial display. Other model parameters controlled with sliders and text boxes are the load position, load wavelength for harmonic loads, and plate density structure (infill density, crust density, mantle density, and the respective interface depths). Plot appearance is controlled with “Xmin”, “Xmax”, and “Spacing” in the “Plot Parameters” panel. Flexure or gravity data can be imported using the “Data Import Utility”, which prompts for an input file name. The data are plotted by clicking the “Plot Data” button. X, Y, and Z buttons and edit box in the “Data Shift” panel allow data to be shifted horizontally and vertically to adjust the model fit. Buttons to interact with the imported data and plots are also provided. The flexural parameter ( $\alpha$  [indicated as Alpha in the TAFI GUI]), zero crossing distance ( $x_0$  [X0 in the GUI]), flexural bulge position ( $x_b$  [Xb in the GUI]), the maximum flexural depth ( $w_{max}$  [Wmax in the GUI]) and the amplitude of peripheral bulge ( $w_b$  [Wb in the GUI]) are displayed in the “Outputs” panel. Flexure and gravity models and imported data are shown in the plot panel.