

1046-O1-913 **Paul Seeburger*** (pseeburger@monroecc.edu), Monroe Community College, 1000 E. Henrietta Rd., Rochester, NY 14623. *Making Calculus Come Alive with Dynamic Visualization Tools*. Preliminary report.

An introduction to a series of Java applets (and Excel demonstrations) developed by the presenter to help students visualize calculus. Some of the Java applets were created to support specific calculus texts, but a number of them can be found on the presenter's webpage. Illustrated concepts include tangent lines, rectilinear motion, Riemann sums, Euler's method, slope fields, Taylor polynomials, washer and shell methods, volumes with a common cross-section, 3D graphs of functions of two variables, limits of functions of two variables, contour plots, the method of Lagrange multipliers, visualizing a double integral, etc. The presenter is also involved in an NSF funded project that focuses on helping students visualize multivariable calculus. (Received September 12, 2008)