1116-R1-2844   **Paul Zorn*** (`zorn@stolaf.edu`), MSCS Department, St Olaf College, Northfield, MN 55057.
Animating maximum and minimum principles in complex analysis.

The maximum modulus principle for analytic functions, and related maximum and minimum principles for harmonic functions, can be challenging to envision geometrically. As a result the statements of these principles, let alone their proofs, can be difficult for students to comprehend. Using animated graphics produced by Mathematica or similar software, one can see maximum and minimum principles for analytic and harmonic functions in action for functions defined on the unit disk and on other familiar plane domains. Combining such views with geometric mapping properties of non-constant analytic functions, also readily illustrated graphically, helps explain from first principles why the maximum modulus principle holds. The speaker will illustrate these methods and views. (Received September 22, 2015)