1056-30-1625 James S Rolf^{*} (jim.rolf@usafa.edu), 1333 Culebra Avenue, Colorado Springs, CO 80903, and Michael Dorff. Applets to Explore Research Topics in Complex Variables. Preliminary report.

We present Java applets designed to help explore some research questions in complex dynamics, minimal surfaces, flow problems, harmonic univalent mappings, mappings to polygonal domains, and circle packing. These applets accompany a monograph for each topic with both exploratory problems and open problems. In this talk, we will demonstrate some of the applets and show how they can be used to explore research topics in these fields. (Received September 22, 2009)