

1056-C1-353

**Anne M. Burns\*** ([aburns@liu.edu](mailto:aburns@liu.edu)), Department of Mathematics, Long Island University, C.W. Post Campus, 720 Northern Blvd., Brookville, NY 11548. *Visualizing the Dynamics of the Unit Circle Group*. Preliminary report.

The Unit Circle Group is a subgroup of the group of Möbius transformations that maps the unit disk to itself. An element of this subgroup is determined by three real parameters. We create Iterated Function Systems made up of transformations of the plane composed with functions from the Unit Circle Group. Then, "continuously" varying the three parameters, we make animations that illustrate the complexity of the dynamics. Finally we show how to use a continuous ramp of color to enhance the animations. (Received September 01, 2009)