1056-37-1685   **Julia A Barnes*** (`jbarnes@email.wcu.edu`), **Clinton Curry** and **Beth Schaubroeck**. *Julia Sets and Graphing Iterates of Quadratic Polynomials.* Preliminary report.

Julia sets for the family of complex functions $f_c(z) = z^2 + c$ have been well-studied for years, and many people are familiar with the images of these Julia sets. However, the graphs of the functions $f_c(z)$ themselves and their iterates are more difficult to visualize because they are four-dimensional. In this talk, we explore the graphs of these functions by analyzing the graphs of the real and imaginary parts of the iterates of $f_c(z)$. Then we look at the limit of these projections and explore the connections between these graphs and the filled Julia sets of the corresponding functions. (Received September 22, 2009)