1125-VW-3018   **Erin E. Williams*** (`ewilliams50@uco.edu`). *Categorization of all Newton maps of rational functions conjugate to quadratic polynomials.*

Conjugation can be used to simplify many questions which arise when iterating complex valued functions. We say that two functions, f and g, are conjugate if there exists a Möbius transformation, M, such that $M \circ f \circ M^{-1} = g$. In this talk we will consider the iteration of Newton maps $(R(z) = z - \frac{r(z)}{r'(z)})$ where $r(z)$ is a rational function, and categorize all such maps which are conjugate to $z^2 + c$. (Received September 20, 2016)