1125-30-2460   **Stephanie P Neas*** (`neass0285@my.uwstout.edu`). *Anallagmatic Curves and Inversion About the Unit Hyperbola.*

We introduce inversion about the unit circle from a complex perspective. Using linear fractional transformations we construct curves in the plane that are self-inverse (anallagmatic). We provide a classification of complex rational functions whose real part has anallagmatic level sets. This framework is then transferred to the split-complex numbers where we develop the theory of anallagmatic curves about the unit hyperbola. (Received September 20, 2016)