1096-47-2639 **Nathan P Clements*** (clementsuwyo@gmail.com). *the spectrum of a hypercyclic operator.*

A bounded linear operator T on a Banach space X is said to be hypercyclic if there exists some vector $x \in X$ so that its orbit $\{x, Tx, T^2x, T^3x, ...\}$ is dense in X. Hypercyclicity is studied because of its connection to the invariant subspace problem, a famous open problem in functional analysis. A dense orbit is also a necessary condition for chaotic operators.

In this talk, we will explore questions about the nature of the spectrum of a hypercyclic operator. We will discuss a classic hypercyclic result that every component of the spectrum must intersect the unit circle, and then will discuss a new result concerning conditions about the cardinality of the spectrum. This result allows us to make several observations about the nature of the spectrum of a hypercyclic operators, some of which shall be discussed. (Received September 17, 2013)