1162-17-157 **Lee A Jenkins*** (lee.jenkins25@uga.edu), 200 D.W. Brooks Drive, Boyd Graduate Studies Research Center, Athens, GA 30602, and **Daniel K Nakano**. *The Nilpotent Cone for Classical Lie Superalgebras.*

In this talk, the speaker will discuss an analogue of the nilpotent cone, $\mathcal{N}$, for a classical Lie superalgebra, $\mathfrak{g}$, that generalizes the definition for the nilpotent cone for semisimple Lie algebras. For a classical simple Lie superalgebra, $\mathfrak{g} = \mathfrak{g}_{\bar{0}} \oplus \mathfrak{g}_{\bar{1}}$ with Lie $G_{\bar{0}} = \mathfrak{g}_{\bar{0}}$, we will show that there are finitely many $G_{\bar{0}}$-orbits on $\mathcal{N}$. It will also be shown that the Duflo-Serganova commuting variety, $\mathcal{X}$, is contained in $\mathcal{N}$ for any classical simple Lie superalgebra. Consequently, the finiteness result we discuss generalizes and extends the work of Duflo-Serganova on the commuting variety. (Received August 31, 2020)