Houssein El Turkey* (houssein@ou.edu), University of Oklahoma, Mathematics Department, 460 Elm Ave., 73069 Norman, OK. Complexity of modules over Lie superalgebras.

The complexity of a module is the rate of growth of a minimal projective resolution of the module. In this talk the complexity is computed for the Kac and the simple modules over the Lie superalgebra of type $C$. Then, a geometric interpretation is given via the theory of support varieties. We also compute the complexity of the simple modules over the exceptional Lie superalgebras $D(2,1;\alpha)$ and $G(3)$. (Received September 06, 2013)