Yuri Bahturin* (bahturin@mun.ca), Department of Mathematics and Statistics, Memorial University of Newfoundland, St. Johns, NL A1C5S7, Canada. Group Gradings on Matrix Algebras and Actions of Taft Algebras.

The study of group graded simple algebras is greatly facilitated if we view them as comodules over group algebras or Hopf module algebras over the dual group algebras. In this talk we would like to show how the developed theory of gradings can help to study the actions of Hopf algebras on the matrix algebras. This is joint work with Susan Montgomery. (Received September 23, 2017)