

1075-16-107

**Eric M Friedlander** and **Julia Pevtsova\***, Dept. of Mathematics, University of Washington, Seattle, WA. *p-Lie algebras and modules of constant Jordan type.*

This talk will serve as a brief overview of some aspects of representation theory and cohomology of Lie algebras in characteristic  $p$  developed since the 80's. The starting point is the calculation of the cohomology algebra of a  $p$ -Lie algebra due to Friedlander-Parshall and Andersen-Jantzen and the subsequent development of the theory of support varieties. I'll discuss how that led to the introduction of modules of constant Jordan type in a joint work with Carlson and Friedlander and describe how modules of constant Jordan type give rise to vector bundles on projective varieties. (Received August 25, 2011)