Workshop on The Algebraic Geometry and Topology of Hyperplane Arrangements

Northeastern University

April 8, 2011

Logarithmic derivations and free divisors

Mathias Schulze, Oklahoma State University

ABSTRACT

The module of logarithmic derivations is a well-known object associated to hyperplane arrangements and more general varieties. It forms an interesting interface between algebra, geometry, representation theory and combinatorics.

We present several recent results and examples with relations to hyperplane arrangements, prehomogeneous vector spaces, quiver representations, reflection groups, deformations of singularities, and fat point schemes.