David Forge (Orsay and Binghamton)

Orlik-Solomon Algebras and Other Algebras of Hyperplane Arrangements

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The Orlik-Solomon algebra of a hyperplane arrangement is defined by the matroid of the arrangement (equivalently, by its intersection lattice) and is in the complex case isomorphic to the cohomology of the complement of the arrangement. The class consisting of those subsets of the matroid that contain no broken circuits gives the usual basis of this algebra. We will see other algebras similar to the Orlik-Solomon algebras and other bases generalizing the no-broken-circuit basis.