

Séminaire de mathématiques et leurs applications

21 septembre 2017

Takuro Abe
Kyushu University, Japan

Titre: Freeness and combinatorics of hyperplane arrangements.

Résumé: An arrangement of hyperplanes is a finite set of linear hyperplanes in a vector field. Associated to it, we may consider the algebra, so called the logarithmic vector fields initiated by K. Saito for the study of universal unfoldings of isolated hypersurface singularities. Logarithmic vector fields are reflexive modules, and we say that an arrangement is free if the module is free. This is a very nice property, but hard to check. Hence it is conjectured that the freeness depends only on the combinatorial structure of an arrangement. In this talk, we review results on freeness, and give recent works related to freeness.