

Meeting: 1000, Albuquerque, New Mexico, SS 3A, Special Session on Algebraic Geometry

1000-14-53 **Yukihito Kawahara*** (ykawa@comp.metro-u.ac.jp), Department of Mathematics, Tokyo Metropolitan University, Minami-Ohsawa 1-1, 192-0397 Hachioji-shi, Tokyo, Japan. *Construction of hyperplane arrangements with non-vanishing local system cohomology.*

The cohomology on the complement of hyperplanes with the coefficients in the rank one local system associated to a generic weight vanishes except in the highest dimension. Such a generic weight is said to be nonresonant. I will construct hyperplane arrangements with resonant local systems, by using combinatorial tools. Some of those examples appears in classical projective geometry. (Received August 09, 2004)