

1118-52-85

Sergey Yuzvinsky* (yuz@uoregon.edu), Dept. of Mathematics, University of Oregon, Eugene, OR 97405. *On free line arrangements*. Preliminary report.

An arrangement of hyperplanes is free if its module of derivations is free. The most intriguing question about free arrangements is the question by H. Terao whether the property of being free is determined by the intersection poset. The answer to this question is not known even for (affine) line arrangements.

A result by the speaker of 1993 reduced this question to studying dimensions of a finite number of homogeneous components of a certain graded linear space - the global sections of a sheaf on the intersection poset. For zero-dimensional sections the question was answered. In the talk we will discuss the sections of dimension one. (Received January 24, 2016)