1037-32-27   **Hiroaki Terao*** (`hterao00@za3.so-net.ne.jp`), Department of Mathematics, Hokkaido University, Sapporo, Japan. *On the free multi-arrangements.*

Free arrangements of hyperplanes have been studied since early 80s. We, however, still don't know exactly what they are. A recent important work of M. Yoshinaga (Invent. math. 2004) tells us that we have to know what free multi-arrangements are in order to know what free arrangements are. In this talk I summerize basic results on free multi-arrangements, all of which were obtained quite recently, including the multi addition-deletion theorem, the multi characteristic polynomials (both by Abe-Terao-Wakefield) and results concerning the multi-Coxeter arrangements. (Received December 23, 2007)