A SURVEY OF COMBINATORIAL SEARCH PROBLEMS MODELLING SORTING

Gyula O.H. Katona

Alfred Renyi Institute of Mathematics
Hungarian Academy of Sciences
POB 127
H-1364 Budapest
Hungary

ohkatona@renyi.hu

The simplest sorting problem cam be considered in the following way. One unknown element has to be found in the set of all $n!$ permutations where one question halves the underlying set, but the intersection of two question sets sometimes must be less than one fourth of $n!$. This inspires the study of the search problems where there are restrictions on the sizes of the question sets and their pairwise intersections.