

Group Testing, Compressed Sensing and Algorithmic Applications

Ely Porat, Bar Ilan University

Abstract

Group testing is a long studied problem in combinatorics: A small set of r ill people must be identified out of the whole population of n people, by using only queries (tests) of the form “Does the set X contain an ill member?”. I will discuss the current state of the art, and show several surprising applications for group testing techniques.