dMFA

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A catalogue of simplicial arrangements in the real projective plane

Branko Grünbaum

Abstract

An arrangement is the complex generated in the real projective plane by a finite family of straight lines that do not form a pencil. The faces of an arrangement are the connected components of the complement of the union of lines. An arrangement is simplicial if all its faces are simplices (triangles). The present paper updates the only previous catalogue of simplicial arrangements, published almost 40 years ago, and presented in a very condensed form. The simplicial arrangements often provide optimal solutions for various problems. A problem that seems very hard is to decide whether the collection presented here is a complete listing of simplicial arrangements.

Katalog simplicialnih razporeditev v realni projektivni ravnini

Razporeditev je kompleksno generirana v realni projektivni ravnini s končno družino ravnih premic, ki ne tvorijo šopa. Lica razporeditve so povezane komponente komplementa unije premic. Razporeditev je simplicialna, če so vsa njena lica simpleksi (trikotniki). Ta članek posodablja edini dosedanji katalog simplicialnih razporeditev, objavljen pred skoraj 40 leti in predstavljen v zelo zgoščeni obliki. Simplicialne razporeditve pogosto dajejo optimalne rešitve različnih problemov. Problem, ali je tu predstavljena zbirka že popoln seznam simplicialnih razporeditev, se zdi zelo težak.

Ključne besede: Simplicialne razporeditve.