

Simple Arrangements of Pseudolines, and their Other Lives

James Lawrence, George Mason University, Fairfax, VA – 22030,

Abstract

By now, simple arrangements of pseudolines have been studied for nearly a century. Besides serving as objects to be studied in their own right, they also provide a combinatorial structure needed in several not-obviously-related mathematical areas. For example, in computer science, they provide pictorial representations of primitive sorting networks; and in statistical learning theory, they provide prototypical examples of structures with low Vapnik-Chervonenkis dimension. This talk will be an introduction to these objects.

Keywords: pseudoline, VC dimension.