
FEDERICO ARDILA, San Francisco State University, USA

The geometry of matroids

Matroid theory is a combinatorial theory of independence which has its origins in linear algebra and graph theory, and turns out to have deep connections with many other fields. With time, the geometric roots of the field have grown much deeper, bearing many new fruits.

The geometric approach to matroid theory has recently led to the development of fascinating mathematics at the intersection of combinatorics, algebra, and geometry, and to the solution of long-standing questions. This talk will survey some recent successes.