Tropical Geometry

Professor Bernard Teissier

Abstract

Given a polynomial in n variables with coefficients in a field, whenever there is a way to measure the “size” of the coefficients, there is a notion of “geometry” of the polynomial, which mixes the exponents that appear and the relative sizes of the coefficients. Tropical Geometry relates this geometry of the equation with the geometry of the set of zeros of the polynomial in an affine space.