

# Applications of curves over finite fields to polynomial problems

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## Abstract

Algebraic curves over finite fields are not only interesting objects from a theoretical point of view, but they also have deep connections with different areas of mathematics and combinatorics.

In fact, they are important tools when dealing with, for instance, permutation polynomials, APN functions, planar functions, exceptional polynomials, scattered polynomials, Moore-like matrices.

In this talk I will present some applications of algebraic curves to the above mentioned objects.

**Keywords:** Algebraic curves over finite fields