

Permutation Polynomials

Guilherme Tizziotti*
Faculdade de Matemática
Universidade Federal de Uberlândia
Uberlândia, Brasil

Abstract

In this talk we present a survey of results on polynomials for which the associated polynomial functions are permutations of a given finite fields \mathbb{F}_q . Polynomials of this type are called *permutation polynomials* and exist for any \mathbf{F}_q since, more generally, every mapping of \mathbf{F}_q into itself can be expressed by a polynomial.

References

- [1] R. Lidl; H. Niederreiter, *Finite Fields*, Cambridge University Press, 1997.
- [2] Z. Zha; L. Hu; Z. Zhang, Permutation polynomials of the form $x + \gamma Tr_q^{q^n}(h(x))$, *Finite Fields and Their Applications*, 60, (2019), 101573.
- [3] D. Zheng; M. Yuan; M. Yu, Two types of permutation polynomials with special forms, *Finite Fields and Their Applications*, 56, (2019), 1-16.

*Partially supported by CPNq 307037/2019-3, e-mail: guilhermect@ufu.br