

Non-singular Points on Hypersurfaces over \mathbb{F}_q

Jahan Zahid

Abstract

In this survey article we investigate hypersurfaces defined over finite fields. More specifically we determine for which hypersurfaces one can ensure the existence of a non-singular point taking the cardinality of our ambient field large if need be. Additionally for such hypersurfaces we will find a lower bound on the cardinality for which a non-singular point is guaranteed.