ABSTRACT

A family of maximal curves

A curve defined over a finite field is called maximal if its number of rational points meets the Hasse-Weil upper bound. The Hermitian curve H is the most important example of a maximal curve since almost all known examples of maximal curves are covered by H. Recently, Giulietti and Korchmaros constructed the first example of a maximal curve which is not covered by H. In this talk, we will present the Giulietti-Korchmaros curve and its generalization. Necessary background on curves over finite fields will be given to make this interesting for general audience.