Algebra and Number Theory Seminar

Title: Curves over finite fields and their rational points

Speaker: Alp Bassa (Istanbul)

Date: Thu 15th October 2020 at 2:00PM

Location: Online

Abstract: Questions on solutions of polynomial equations over finite fields have a long history and occupy an important place in number theory. In this talk, we will be interested in the particular case, where the equations define algebraic curves of large genus. Understanding the number of rational points on such curves has been an interesting question. As usual, extremal examples play an important role and in the past, various methods have been employed to construct high genus curves over finite fields with many rational points. In this talk, I will try to give an overview of the landscape and present new explicit extremal examples over prime fields (joint work with Christophe Ritzenthaler).

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