On the existence of pairs of primitive elements, related by a rational function, on finite fields

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Abstract

In this talk we would like to present some results on the existence of pairs of elements in a finite field, where the first element is either primitive or primitive and normal over a subfield, and the second element is primitive and a rational function of the first one. This is based on joint works with J.P Guardieiro, V. Neumann and G. Tizziotti.