Factors of Sparse Polynomials are Sparse

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Abstract

This paper was removed due to an error in the proof (Claim 4.12 as stated is not true). The authors would like to thank Ilya Volkovich for pointing out a counterexample to this papers main result in positive characteristic: If \( F \) is a field with prime characteristic \( p \), then the polynomial \( x_1^p + x_2^p + \ldots + x_n^p \) has the following factor: \( (x_1 + x_2 + \ldots + x_n)^{p-1} \), which has sparsity \( np \).

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