



# 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 paper's main result in positive characteristic: If  $\mathbb{F}$  is a field with prime characteristic  $p$ , then the polynomial  $x_1^p + x_2^p + \dots + x_n^p$  has the following factor:  $(x_1 + x_2 + \dots + x_n)^{p-1}$ , which has sparsity  $n^p$ .

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