

**Title:** Indecomposability of linear combinations of Bernoulli polynomials

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In this manuscript, the authors prove the following: for an odd integer  $n \geq 3$ , and integers  $a_n, a_{n-2}, a_{n-4}, \dots, a_3, a_1$  such that  $4 \nmid a_n$ , the polynomial

$$a_n B_n(x) + a_{n-2} B_{n-2}(x) + \cdots + a_3 B_3(x) + a_1 B_1(x),$$

where  $B_n(x)$  stands for the  $n$ -th Bernoulli polynomial, is indecomposable over the field of complex numbers.

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