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A Diophantine representation of Bernoulli numbers and its applications. (English. Russian original) [\[Zbl 1118.11013\]](#)

Proc. Steklov Inst. Math. 242, 86-91 (2003); translation from Tr. Mat. Inst. Im. V. A. Steklova 242, 98-102 (2003).

Summary: A new method for constructing a Diophantine representation of Bernoulli numbers is proposed. The method is based on the Taylor series for the function $\tau/(e^\tau - 1)$. This representation can be used for constructing Diophantine representations of the set of all Carmichael numbers (i.e., numbers that are pseudoprime for every base) and for the set of all square-free numbers.

For the entire collection see [\[Zbl 1059.03004\]](#).

MSC:

11B68 Bernoulli and Euler numbers and polynomials