Deeba, Elias Y.; **Rodriguez, Dennis M.**

Stirling's series and Bernoulli numbers. (English) Zbl 0743.11012

Am. Math. Mon. 98, No. 5, 423-426 (1991).

For $n = 2, 3, \ldots$ the following infinite system of recurrences for the Bernoulli numbers B_m is shown:

$$B_m = \frac{1}{n(1-n^m)} \sum_{k=0}^{m-1} n^k \binom{m}{k} B_k \sum_{j=1}^{n-1} j^{m-k}.$$

The proof follows by direct computations from the usual generating function of the Bernoulli numbers.

Reviewer: R.F.Tichy (Graz)

MSC:

11B68 Bernoulli and Euler numbers and polynomials
05A15 Exact enumeration problems, generating functions

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infinite system of recurrences; Bernoulli numbers; generating function

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