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**Title:** Incomplete poly-Bernoulli numbers associated with incomplete Stirling numbers

**Author(s):** Takao Komatsu, Kálmán Liptai and István Mező

By using the associated and restricted Stirling numbers of the second kind, we give some generalizations of the poly-Bernoulli numbers. We also study their analytic and combinatorial properties. As an application, at the end of the paper we present a new infinite series representation of the Riemann zeta function via the Lambert  $W$ .

**Address:**

Takao Komatsu  
School of Mathematics and Statistics  
Wuhan University  
Wuhan 430072  
China

**Address:**

Kálmán Liptai  
Eszterházy Károly College  
Rector's Office  
Eger 3300  
Hungary

**Address:**

István Mező  
Department of Mathematics  
Nanjing University of Information Science and Technology  
Nanjing 210044  
China