Christian Ballot On Zeckendorf and Base b Digit Sums, Fibonacci Quart. **51** (2013), no. 4, 319–325.

Abstract

J. Pihko presented an elementary proof of the fact that the average number of summands in the Zeckendorf representation of an integer n is asymptotically equal to $C \log n$ for some explicit constant C. We retain the central idea of that proof, but provide a new elementary method that has the advantage of being more concise, and to also explain the asymptotics of the average sum of digits of integers in base b.