

1154-05-1466

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*Increasing consecutive patterns in words.*

We will discuss how we used experimental math methods to conjecture the generating function for words in the alphabet  $\{1, 2, \dots, n\}$  ( $n \geq 1$ ) avoiding the consecutive pattern  $12 \cdots r$  for any  $r \geq 2$ , and how to tweak the Goulden-Jackson cluster method to prove this result. Time permitting, we will also discuss extension to words with a certain number of the consecutive pattern  $12 \cdots r$  (not just avoiding) and recurrences we came up with, which lead to efficient computations. (Received September 15, 2019)