

1106-05-891

Lara Pudwell* (lara.pudwell@valpo.edu), Department of Mathematics and Statistics, 1900 Chapel Drive, Valparaiso, IN 46383. *Pattern-avoiding ascent sequences.*

Let $\text{asc}(x_1 \cdots x_n)$ be the number of ascents in $x_1 \cdots x_n$. An *ascent sequence* $x_1 \cdots x_n$ is a sequence of non-negative integers such that $x_1 = 0$, and for $1 < i \leq n$, $x_i \leq \text{asc}(x_1 \cdots x_{i-1}) + 1$. In this talk, we consider ascent sequences avoiding various patterns of length 3 or length 4. Of particular note, we show that 0021-avoiding ascent sequences are counted by the binomial convolution of the Catalan numbers. This result, together with previous work of Duncan, Steingrímsson, Mansour, and Shattuck, completes the Wilf classification of single patterns of length 4 for ascent sequences. (Received September 08, 2014)