

Title: Ascent sequences avoiding a set of length-3 patterns

Abstract: An *ascent sequence* is a sequence $a_1a_2\cdots a_n$ consisting of non-negative integers satisfying $a_1 = 0$ and for $1 < i \leq n$, $a_i \leq \text{asc}(a_1a_2\cdots a_{i-1}) + 1$, where $\text{asc}(a_1a_2\cdots a_k)$ is the number of ascents in the sequence $a_1a_2\cdots a_k$. We say that two sets of patterns B and C are *A-Wilf-equivalent* if the number of ascent sequences of length n that avoid B equals the number of ascent sequences of length n that avoid C , for all $n \geq 0$.

In this talk, we show that the number aw_k of *A-Wilf-equivalence* classes of k length-3 patterns is given by

$$\begin{aligned}aw_1 &= 9(\text{Duncan and Steingrímsson}), \quad aw_2 = 35(\text{Baxter and Pudwell}), \\aw_3 &= 62, \quad aw_4 = 74, \quad aw_5 = 61, \quad aw_6 = 47, \quad aw_7 = 35, \quad aw_8 = 25, \\aw_9 &= 18, \quad aw_{10} = 12, \quad aw_{11} = 7, \quad aw_{12} = 3, \quad aw_{13} = 1.\end{aligned}$$

Based on joint work with David Callan.