

1123-05-86

Marika Diepenbroek, Monica Maus and Lara Pudwell* (lara.pudwell@valpo.edu),
Department of Mathematics and Statistics, 1900 Chapel Drive, Valparaiso, IN 46383, and **Alex
Stoll**. *Pattern avoidance in reverse double lists.*

In this talk, we consider classical pattern avoidance in the subset of words that use each letter from $[n]$ exactly twice with the symmetry $w = w^r$. In particular, we define the set of reverse double lists on n letters to be $\mathcal{R}_n := \{\pi\pi^r \mid \pi \in \mathcal{S}_n\}$. We enumerate reverse double lists avoiding a single permutation pattern of length at most 4 and completely determine the corresponding Wilf classes. We also consider special results for patterns of length 5 and monotone patterns.

This is joint work with Marika Diepenbroek (University of North Dakota), Monica Maus (Minnesota State Moorhead), and Alex Stoll (Clemson University). (Received August 18, 2016)