

1053-05-107

Catherine Yan* (cyan@math.tamu.edu), Department of Mathematics, Texas A&M University, MS 3368, College Station, TX 77843-3368, and **William Chen, Andrew Wang** and **Alina Zhao**. *Mixed Statistics on 01-Fillings of Moon Polyominoes*.

We establish a stronger symmetry between the numbers of northeast and southeast chains in the context of 01-fillings of moon polyominoes. We introduce four pairs of mixed statistics on 01-fillings of moon polyominoes, each of them being a combination of northeast and southeast chains with respect to a bipartition of rows or columns of the moon polyomino. We show that they share the same symmetric distribution as (ne, se) , the numbers of northeast chains and southeast chains, respectively. (Received August 26, 2009)