

1110-05-82

James Haglund, Jeffrey B. Remmel and Andrew T. Wilson* (atwilson@ucsd.edu).

Parking functions with undesirable spaces. Preliminary report.

We consider an extension of parking functions in which some parking spaces are marked as “undesirable.” These objects lead to a variety of enumerative, algebraic, and geometric questions. In this talk, we focus on a conjecture which connects parking functions with undesirable spaces to Macdonald polynomial operators, generalizing the Shuffle Conjecture of Haglund, Haiman, Loehr, Remmel, and Ulyanov. We also show how our conjecture brings together combinatorial objects such as ordered set partitions, LLT polynomials, and generalized Tesler matrices. (Received February 10, 2015)