1115-05-314 **Emily Sergel Leven*** (esergel@ucsd.edu). *Parking Functions and the Square Paths Conjecture.* Preliminary report.

In 2005, Halgund, Haiman, Loehr, Remmel and Ulyanov conjectured a relation between parking functions and the image of the elementary symmetric function e_n under a certain modified Macdonald polynomial eigen-operator, ∇. This conjecture was refined by Haglund, Morse and Zabrocki in 2012 and proven by Carlsson and Mellit in 2015. A similar (open) conjecture from 2007 by Loehr and Warrington relates $\nabla(p_n)$ to preference functions. Here we connect this conjecture to parking functions using tools from symmetric function theory and enumerative combinatorics. (Received September 21, 2015)