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Jim Haglund* (jhaglund@math.upenn.edu) and **Mahir Can** (mcan@uwo.ca). *q-Eulerian polynomials and the q, t -Catalan sequence*. Preliminary report.

We discuss a 4-parameter extension of the Catalan numbers which is connected to diagonal harmonics and the nested Hilbert scheme of n points in the plane. Trying to extend this 4-parameter function to parking functions led to a polynomial which contains the Hall-Littlewood symmetric function and the Eulerian polynomial as special cases. We prove this polynomial has the same inv and maj distributions. (Received January 09, 2007)