1106-05-918 **Sergey Kitaev** (sergey.kitaev@cis.strath.ac.uk), Dept. of Computer and Information Science, University of Strathclyde, Glasgow, United Kingdom, **Miles Jones** (mjones@inst-math.utalca.cl), Instituto de Mathemática, Unversidad de Talca, Camino Lircay, Chile, and **Jeffrey B. Remmel*** (jremmel@ucsd.edu), Department of Mathematics, University of California, San Diego, La Jolla, CA 92093-0112. *μ patterns in n-cycles.*

Given an n-cycle C in the symmetric group S_n, we say that a pair $\langle i, j\rangle$ matches the μ pattern if $i < j$ and, as we traverse around C in a clockwise direction starting at i and ending at j, we never encounter a k with $i < k < j$. We say that a μ-match $\langle i, j\rangle$ in C is trivial if $j = i + 1$ and is non-trivial otherwise. We say that an n-cycle C in S_n is incontractible if there is no i which is immediately followed by $i + 1$ as we traverse in a clockwise direction around C. We show that the generating function $NTI_{n,\mu}(q)$ of q raised to the number of nontrivial μ-matches in C over all incontractible n-cycles C in S_n is a new q-analogue of the derangement numbers. We also show that there is a surprising connection between the charge statistic of Lascoux and Schüzenberger and the polynomials $NTI_{n,\mu}(q)$ in that the coefficient of the smallest power of q in $NTI_{2k+1,\mu}(q)$ is the number of permutations in S_{2k+1} whose charge path is a Dyck path. (Received September 08, 2014)