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Xi Sisi Shen* (xss2000@columbia.edu), New York, NY 10027, and **Aaron S Williams**. *A 'Hot Potato' Gray code for Permutations*. Preliminary report.

We prove the existence of a 'Hot Potato' Gray code for permutations that always transposes the value n with a value that is one or two positions to its left or right, circularly. This appears to be the first permutation Gray code that restricts both the value and position of the transposed symbols. Our construction relies on the doubly-adjacent Gray code by Compton and Williamson. This is joint work with Aaron Williams. (Received August 31, 2013)