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**Jacob N Steinhardt\*** ([jsteinha@mit.edu](mailto:jsteinha@mit.edu)), 282 Massachusetts Avenue, Room 425s, Cambridge, MA 02139. *Permutations with Ascending and Descending Blocks.*

I will present a bijection due to Gessel and Reutenauer between permutations that ascend in blocks of prescribed lengths and multisets of necklaces with certain properties. This bijection was first used to provide an enumeration of permutations with given descent set and cycle structure. I will then present a generalization of the Gessel-Reutenauer bijection to permutations with both ascending and descending blocks. (Received September 19, 2009)