1135-01-1708 **Andreas Blass**, **Joerg Brendle**, **Will Brian**, **Joel David Hamkins**, **Michael Hardy** and **Paul B. Larson*** (larsonpb@miamioh.edu), Department of Mathematics, Miami University, Oxford, OH 45056. *Cardinal characteristics related to permutations of conditionally convergent series.*

We consider the smallest cardinality of a set of permutations of the natural numbers with the property that that every conditionally convergent series of real numbers can be rearranged by a member of the set to no longer converge to the same sum. We call this smallest cardinality the rearrangement number. We show that the rearrangement number is uncountable, and that whether or not it equals the cardinal of the continuum is independent of the usual axioms of set theory. We compare the rearrangement number with several natural variants, for example one obtained by requiring the rearranged series to still converge but to a new, finite limit. We also compare the rearrangement number with several well-studied cardinal characteristics of the continuum. We present some new forcing constructions designed to add permutations that rearrange series from the ground model in particular ways, thereby obtaining consistency results going beyond those that follow from comparisons with familiar cardinal characteristics. One simple consequence of these results is the following : for any countable set of conditionally converging real series, there is a permutation which makes them all converge to different values. (Received September 24, 2017)