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**Aparna Upadhyay\*** (aparnaup@buffalo.edu), 244 Mathematics Building, University at Buffalo, SUNY, Buffalo, NY 14260. *The Benson - Symonds invariant for Permutation modules.*

In a recent paper Dave Benson and Peter Symonds defined a new invariant  $\gamma_G(M)$  for a finite dimensional module  $M$  of a finite group  $G$ . This invariant measures the non-projective proportion of  $M^{\otimes n}$  in the limit and hence quantifies how close the module is to being projective. This invariant is not known for any infinite class of modules till date. In this talk, we will see some interesting properties of this invariant. We will go on to determine this invariant for permutation modules of the symmetric group corresponding to two-part partitions and present a combinatorial formula for the same using tools from representation theory and combinatorics. (Received September 10, 2019)