

1151-20-169

**Aparna Upadhyay\*** (aparnaup@buffalo.edu), 244 Mathematics Building, University at Buffalo, SUNY, Buffalo, NY 14260. *The non-projective part of the tensor powers of some 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. 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 using tools from representation theory and combinatorics. (Received August 17, 2019)