

On permutation characters and Sylow p -subgroups of \mathfrak{S}_n

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ABSTRACT

Let p be an odd prime and n a natural number. We determine the irreducible constituents of the permutation module induced by the action of the symmetric group \mathfrak{S}_n on the cosets of a Sylow p -subgroup P_n . Before describing some consequences of this result, we will give an overview of the background and recent related results in the area. This is joint work with E. Giannelli.