

# GROUP CHARACTERS AS SYMMETRIC FUNCTIONS

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ABSTRACT. The characters of the general linear group are found by evaluating Schur polynomials at eigenvalues of matrices. In this talk, I will describe bases of ring of symmetric functions that evaluate to characters of the symmetric group when evaluated at eigenvalues of permutation matrices. In addition, I will discuss how these bases relate to two major outstanding open problems in algebraic combinatorics: the restriction problem and the Kronecker problem. The main combinatorial objects in this talk are tableaux filled with multisets. The talk will be accessible to graduate students, and I plan to give a short survey of the relationship between symmetric functions and the general linear group.