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Title:	Study of Littlewood-Richardson coefficients and an application
Authors:	C S, Sachin.
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Abstract:	Symmetric functions arise in several branches of mathematics such as Combinatorics, Rep resentation of symmetric groups and Algebraic geometry. Schur polynomials are a family of symmetric polynomials that are indexed by partitions of positive integers. These poly nomials span the space of symmetric polynomials and their products can again be written as a linear combination of Schur polynomials with non-negative integer coefficients known as Littlewood-Richardson coefficients. In this thesis, we begin with the study of the combinatorics of Young tableaux, the words associated to them,the plactic monoid and the tableau ring. In the subsequent chapters we discuss the Robinson-Schensted correspondence and its applications,introduces the Schur polynomials and LR coefficients and discuss three combinatorial models that help compute the LR coefficients. Finally in chapter 4 we apply the combinatorial methods studied to give an elementary proof of a result on Schur positivity in a very special case.
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