

1. Record Nr.	UNINA9910789068503321
Autore	Louck James D
Titolo	Applications of unitary symmetry and combinatorics [[electronic resource] /] / James D. Louck
Pubbl/distr/stampa	Hackensack, N.J., : World Scientific, c2011
ISBN	1-283-43383-4 9786613433831 981-4350-72-9
Descrizione fisica	1 online resource (381 p.)
Disciplina	511.6
Soggetti	Symmetry (Physics) Combinatorial analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface and Prelude; OVERVIEW AND SYNTHESIS OF BINARY COUPLING THEORY; TOPICAL CONTENTS; MATTERS OF STYLE, READERSHIP, AND RECOGNITION; Contents; Notation; 1 Composite Quantum Systems; 1.1 Introduction; 1.2 Angular Momentum State Vectors of a Composite System; 1.2.1 Group Actions in a Composite System; 1.3 Standard Form of the Kronecker Direct Sum; 1.3.1 Reduction of Kronecker Products; 1.4 Recoupling Matrices; 1.5 Preliminary Results on Doubly Stochastic Matrices and Permutation Matrices; 1.6 Relationship between Doubly Stochastic Matrices and Density Matrices in Angular Momentum Theory 2 Algebra of Permutation Matrices 2.1 Introduction; 2.2 Basis Sets of Permutation Matrices; 2.2.1 Summary; 3 Coordinates of A in Basis P n(e, p); 3.1 Notations; 3.2 The A-Expansion Rule in the Basis P n(e,p); 3.3 Dual Matrices in the Basis Set n(e, p); 3.3.1 Dual Matrices for 3(e, p); 3.3.2 Dual Matrices for 4(e, p); 3.4 The General Dual Matrices in the Basis n(e, p); 3.4.1 Relation between the A-Expansion and Dual Matrices; 4 Further Applications of Permutation Matrices; 4.1 Introduction; 4.2 An Algebra of Young Operators; 4.3 Matrix Schur Functions 4.4 Real Orthogonal Irreducible Representations of Sn 4.4.1 Matrix Schur Function Real Orthogonal Irreducible Representations; 4.4.2 Jucys-Murphy Real Orthogonal Representations; 4.5 Left and Right

Regular Representations of Finite Groups; 5 Doubly Stochastic Matrices in Angular Momentum Theory; 5.1 Introduction; 5.2 Abstractions and Interpretations; 5.3 Permutation Matrices as Doubly Stochastic; 5.4 The Doubly Stochastic Matrix for a Single System with Angular Momentum J ; 5.4.1 Spin-1/2 System; 5.4.2 Angular Momentum- j System; 5.5 Doubly Stochastic Matrices for Composite Angular Momentum Systems; 5.5.1 Pair of Spin-1/2 Systems; 5.5.2 Pair of Spin-1/2 Systems as a Composite System; 5.6 Binary Coupling of Angular Momenta; 5.6.1 Complete Sets of Commuting Hermitian Observables; 5.6.2 Domain of Definition $RT(j)$; 5.6.3 Binary Bracketings, Shapes, and Binary Trees; 5.7 State Vectors: Uncoupled and Coupled; 5.8 General Binary Tree Couplings and Doubly Stochastic Matrices; 5.8.1 Overview; 5.8.2 Uncoupled States; 5.8.3 Generalized WCG Coefficients; 5.8.4 Binary Tree Coupled State Vectors; 5.8.5 Racah Sum-Rule and Biedenharn-Elliott Identity as Transition Probability Amplitude Relations; 5.8.6 Symmetries of the $6-j$ and $9-j$ Coefficients; 5.8.7 General Binary Tree Shape Transformations; 5.8.8 Summary; 5.8.9 Expansion of Doubly Stochastic Matrices into Permutation Matrices; 6 Magic Squares; 6.1 Review; 6.2 Magic Squares and Addition of Angular Momenta; 6.3 Rational Generating Function of $H_n(r)$; 7 Alternating Sign Matrices; 7.1 Introduction; 7.2 Standard Gelfand-Tsetlin Patterns; 7.2.1 A-Matrix Arrays; 7.2.2 Strict Gelfand-Tsetlin Patterns; 7.3 Strict Gelfand-Tsetlin Patterns for $(n \ n \ 1 \ \dots \ 2 \ 1)$

Sommario/riassunto

This monograph is a synthesis of the theory of the pairwise coupling of the angular momenta of arbitrarily many independent systems to the total angular momentum in which the universal role of doubly stochastic matrices and their quantum-mechanical probabilistic interpretation is a major theme. A uniform viewpoint is presented based on the structure of binary trees. This includes a systematic method for the evaluation of all $3n-j$ coefficients and their relationship to cubic graphs. A number of topical subjects that emerge naturally are also developed, such as the algebra of permutation matrices

2. Record Nr.	UNISA996217642303316
Titolo	Acta sociológica // Coordinación de Sociología, FCPyS, UNAM
Pubbl/distr/stampa	México, D.F., : Universidad Nacional Autónoma de México, Facultad de Ciencias Políticas y Sociales, Coordinación de Sociología
ISSN	2448-4938
Descrizione fisica	1 online resource
Soggetti	Sociology Sociology - Research - Mexico Sociology - Research - Latin America Sociology - Research Periodicals. Latin America Mexico
Lingua di pubblicazione	Spagnolo
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed Title from caption. Each issue has also a distinctive title.