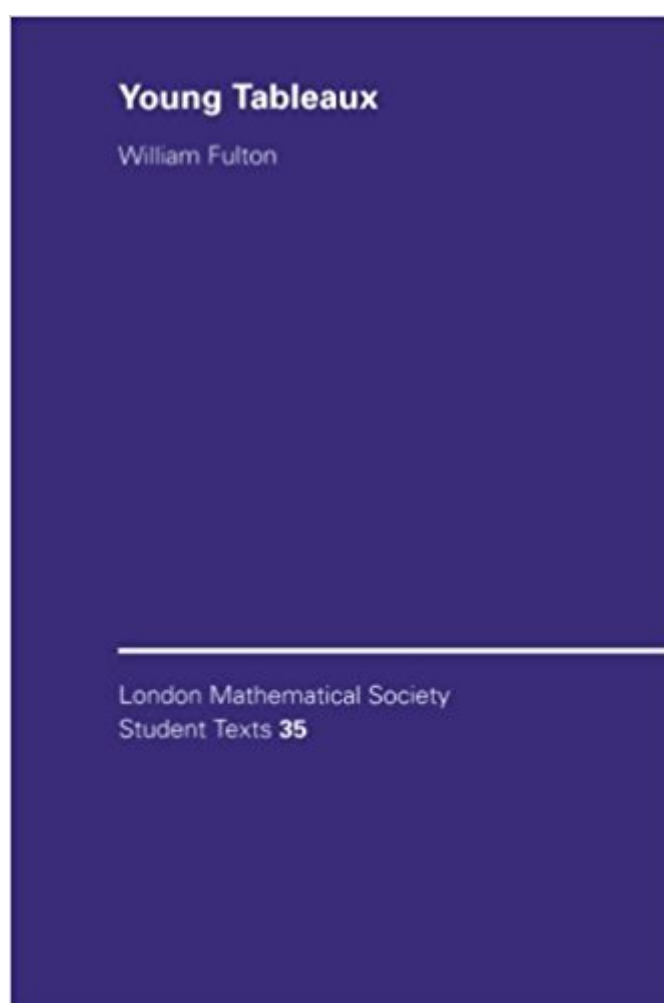


The book was found

Young Tableaux: With Applications To Representation Theory And Geometry (London Mathematical Society Student Texts)



Synopsis

This book develops the combinatorics of Young tableaux and shows them in action in the algebra of symmetric functions, representations of the symmetric and general linear groups, and the geometry of flag varieties. The first part of the book is a self-contained presentation of the basic combinatorics of Young tableaux, including the remarkable constructions of "bumping" and "sliding", and several interesting correspondences. In Part II the author uses these results to study representations with geometry on Grassmannians and flag manifolds, including their Schubert subvarieties, and the related Schubert polynomials. Much of this material has never before appeared in book form. There are numerous exercises throughout, with hints and answers provided. Researchers in representation theory and algebraic geometry as well as in combinatorics will find this book interesting and useful, while students will find the intuitive presentation easy to follow.

Book Information

Series: London Mathematical Society Student Texts (Book 35)

Paperback: 272 pages

Publisher: Cambridge University Press; 1 edition (December 28, 1996)

Language: English

ISBN-10: 0521567246

ISBN-13: 978-0521567244

Product Dimensions: 6 x 0.6 x 9 inches

Shipping Weight: 1 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 1 customer review

Best Sellers Rank: #821,477 in Books (See Top 100 in Books) #114 in [Books > Science & Math > Mathematics > Pure Mathematics > Group Theory](#) #488 in [Books > Textbooks > Science & Mathematics > Mathematics > Geometry](#) #928 in [Books > Science & Math > Mathematics > Geometry & Topology](#)

Customer Reviews

The aim of this book is to develop the combinatorics of Young tableaux and to show them in action in the algebra of symmetric functions, representations of the symmetric and general linear groups, and the geometry of flag varieties.

Young tableaux are fillings of the boxes of diagrams that correspond to partitions with positive integers, that are strictly increasing down columns and weakly increasing along rows. The aim of

this book is to develop the combinatorics of Young tableaux and to show them in action in the algebra of symmetric functions, the representations of the symmetric and general linear groups, and the geometry of flag varieties. Many of these applications have not been available in book form.

With his usual lucidity, Fulton brings together the surprisingly wide area of mathematics concerned with Young tableaux. These are combinatorial patterns which index basis vectors of group representations (either of the symmetric group or the general linear group). These vectors can be seen as Plucker coordinate functions on non-linear representations, namely homogeneous spaces (Grassmannians and flag varieties). Thus, Young tableaux form an invaluable tool to examine these representations and varieties in concrete detail. Fulton also gives a good exposition of the combinatorial operations on tableaux which reflect the crystal basis structure from quantum $GL(n)$, though Fulton does not explicitly discuss quantum groups. Other good expositions of these topics, from a more algebraic and combinatorial point of view, are Sagan's newly revised "The Symmetric Group", and Stanley's "Enumerative Combinatorics", Vol 2.

[Download to continue reading...](#)

Young Tableaux: With Applications to Representation Theory and Geometry (London Mathematical Society Student Texts) London: London Travel Guide: 101 Coolest Things to Do in London (London Vacations, London Holidays, London Restaurants, Budget Travel London, UK Travel Guide, England Travel Guide) Undergraduate Algebraic Geometry (London Mathematical Society Student Texts) The Mathematical Theory of Symmetry in Solids: Representation Theory for Point Groups and Space Groups (Oxford Classic Texts in the Physical Sciences) A Short Course on Banach Space Theory (London Mathematical Society Student Texts) Groups, Languages and Automata (London Mathematical Society Student Texts) Lectures on Elliptic Curves (London Mathematical Society Student Texts, Vol. 24) Undergraduate Commutative Algebra (London Mathematical Society Student Texts) LONDON: The Ultimate Travel Guide With Essential Tips About What To See, Where To Go, Eat And Sleep (London Travel Guide, London Guide, London Traveling Guide) Elementary Algebraic Geometry (Student Mathematical Library, Vol. 20) (Student Mathematical Library, V. 20) Modern Geometry – Methods and Applications: Part I: The Geometry of Surfaces, Transformation Groups, and Fields (Graduate Texts in Mathematics) (Pt. 1) Representation Theory and Complex Geometry Algebraic Topology: A Student's Guide (London Mathematical Society Lecture Note Series) Introduction to Lie Algebras and Representation Theory (Graduate Texts in Mathematics) (v. 9) Representation Theory: A First Course (Graduate Texts in Mathematics) Geometry: Integration, Applications, Connections Student Edition (MERRILL

GEOMETRY) The Mathematical Theory of Non-uniform Gases: An Account of the Kinetic Theory of Viscosity, Thermal Conduction and Diffusion in Gases (Cambridge Mathematical Library) An Introduction to the Mathematical Theory of Waves (Student Mathematical Library, V. 3) Fundamental Algebraic Geometry (Mathematical Surveys and Monographs) (Mathematical Surveys and Monographs Series (Sep.Title P) Books of Breathing and Related Texts -Late Egyptian Religious Texts in the British Museum Vol.1 (Catalogue of the Books of the Dead and Other Religious Texts in the British Museum)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)