1. Record Nr. UNINA9910146272903321

Titolo	Asymptotic Combinatorics with Applications to Mathematical Physics : A European Mathematical Summer School held at the Euler Institute, St. Petersburg, Russia, July 9-20, 2001 / / edited by Anatoly M. Vershik
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2003
ISBN	3-540-44890-X
Edizione	[1st ed. 2003.]
Descrizione fisica	1 online resource (X, 250 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1815
Disciplina	510 s 530.15/16
Soggetti	Applied mathematics Engineering mathematics Physics Combinatorics Group theory Functional analysis Partial differential equations Applications of Mathematics Physics, general Group Theory and Generalizations Functional Analysis Partial Differential Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Random matrices, orthogonal polynomials and Riemann — Hilbert problem -- Asymptotic representation theory and Riemann — Hilbert problem -- Four Lectures on Random Matrix Theory -- Free Probability Theory and Random Matrices -- Algebraic geometry,symmetric functions and harmonic analysis -- A Noncommutative Version of Kerov's Gaussian Limit for the Plancherel Measure of the Symmetric Group -- Random trees and moduli of curves -- An introduction to harmonic analysis on the infinite symmetric group -- Two lectures on

	the asymptotic representation theory and statistics of Young diagrams -- III Combinatorics and representation theory -- Characters of symmetric groups and free cumulants -- Algebraic length and Poincaré series on reflection groups with applications to representations theory -- Mixed hook-length formula for degenerate a fine Hecke algebras.
Sommario/riassunto	At the Summer School Saint Petersburg 2001, the main lecture courses bore on recent progress in asymptotic representation theory: those written up for this volume deal with the theory of representations of infinite symmetric groups, and groups of infinite matrices over finite fields; Riemann-Hilbert problem techniques applied to the study of spectra of random matrices and asymptotics of Young diagrams with Plancherel measure; the corresponding central limit theorems; the combinatorics of modular curves and random trees with application to QFT; free probability and random matrices, and Hecke algebras.