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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.