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Autore	Féray Valentin
Titolo	Mod- convergence : normality zones and precise deviations / / by Valentin Féray, Pierre-Loïc Méliot, Ashkan Nikeghbali
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Disciplina	519.2
Soggetti	Probabilities Number theory Combinatorial analysis Matrix theory Algebra Probability Theory and Stochastic Processes Number Theory Combinatorics Linear and Multilinear Algebras, Matrix Theory
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Preface -- Introduction -- Preliminaries -- Fluctuations in the case of lattice distributions -- Fluctuations in the non-lattice case -- An extended deviation result from bounds on cumulants -- A precise version of the Ellis-Gärtner theorem -- Examples with an explicit generating function -- Mod-Gaussian convergence from a factorisation of the PGF -- Dependency graphs and mod-Gaussian convergence -- Subgraph count statistics in Erdös-Rényi random graphs -- Random character values from central measures on partitions -- Bibliography.
Sommario/riassunto	The canonical way to establish the central limit theorem for i.i.d. random variables is to use characteristic functions and Lévy's continuity theorem. This monograph focuses on this characteristic function approach and presents a renormalization theory called mod-convergence. This type of convergence is a relatively new concept with many deep ramifications, and has not previously been published in a

single accessible volume. The authors construct an extremely flexible framework using this concept in order to study limit theorems and large deviations for a number of probabilistic models related to classical probability, combinatorics, non-commutative random variables, as well as geometric and number-theoretical objects. Intended for researchers in probability theory, the text is carefully well-written and well-structured, containing a great amount of detail and interesting examples. .