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Nota di contenuto	Orthogonal polynomials on a compact set -- Asymptotically periodic recurrence coefficients -- Probabilistic proofs of asymptotic formulas -- Orthogonal polynomials on unbounded sets -- Zero distribution and consequences -- Some applications.
Sommario/riassunto	Recently there has been a great deal of interest in the theory of orthogonal polynomials. The number of books treating the subject, however, is limited. This monograph brings together some results involving the asymptotic behaviour of orthogonal polynomials when the degree tends to infinity, assuming only a basic knowledge of real and complex analysis. An extensive treatment, starting with special knowledge of the orthogonality measure, is given for orthogonal polynomials on a compact set and on an unbounded set. Another possible approach is to start from properties of the coefficients in the three-term recurrence relation for orthogonal polynomials. This is done using the methods of (discrete) scattering theory. A new method, based on limit theorems in probability theory, to obtain asymptotic formulas for some polynomials is also given. Various consequences of all the results are described and applications are given ranging from random matrices and birth-death processes to discrete Schrödinger operators, illustrating the close interaction with different branches of applied mathematics.