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Descrizione fisica	1 online resource (XIII, 322 p.)
Collana	Advanced Courses in Mathematics - CRM Barcelona, , 2297-0304
Disciplina	512.55
Soggetti	C*-algebras
Lingua di pubblicazione	Inglese
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Nota di contenuto	Banach algebras and spectral theory -- The Gelfand representation -- C*-algebra basics -- Positive elements -- Positive linear functionals and representations -- Weak and strong operator topologies and von Neumann algebras -- Tensor products for C*-algebras -- Completely positive maps -- Inductive limits and approximately finite (AF) C*-algebras -- Group C*-algebras and crossed products -- Cuntz algebras -- Quasidiagonal C*-algebras -- K-theory for unital C*-algebras -- Classification of AF-algebras -- Nuclear dimension -- Strongly self-absorbing algebras -- The Jiang-Su algebra -- Strict comparison and the Cuntz semigroup -- The Classification Theorem and the Toms-Winter Theorem.
Sommario/riassunto	This book is directed towards graduate students that wish to start from the basic theory of C*-algebras and advance to an overview of some of the most spectacular results concerning the structure of nuclear C*-algebras. The text is divided into three parts. First, elementary notions, classical theorems and constructions are developed. Then, essential examples in the theory, such as crossed products and the class of quasidiagonal C*-algebras, are examined, and finally, the Elliott invariant, the Cuntz semigroup, and the Jiang-Su algebra are defined. It is shown how these objects have played a fundamental role in understanding the fine structure of nuclear C*-algebras. To help understanding the theory, plenty of examples, treated in detail, are included. This volume will also be valuable to researchers in the area as

a reference guide. It contains an extensive reference list to guide readers that wish to travel further.
