

1. Record Nr.	UNINA9910438151503321
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Titolo	Positive linear maps of operator algebras / / Erling Strmer
Pubbl/distr/stampa	Heidelberg [Germany] ; ; New York, : Springer, 2013
ISBN	3-642-34369-4
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (134 p.)
Collana	Springer monographs in mathematics, , 1439-7382
Disciplina	512.9/4 512.94
Soggetti	Operator algebras C*-algebras
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- 1 Generalities for positive maps -- 2 Jordan algebras and projection maps -- 3 Extremal positive maps -- 4 Choi matrices and dual functionals -- 5 Mapping cones -- 6 Dual cones -- 7 States and positive maps -- 8 Norms of positive maps -- Appendix: A.1 Topologies on $B(H)$ -- A.2 Tensor products -- A.3 An extension theorem -- Bibliography -- Index .
Sommario/riassunto	This volume, setting out the theory of positive maps as it stands today, reflects the rapid growth in this area of mathematics since it was recognized in the 1990s that these applications of C*-algebras are crucial to the study of entanglement in quantum theory. The author, a leading authority on the subject, sets out numerous results previously unpublished in book form. In addition to outlining the properties and structures of positive linear maps of operator algebras into the bounded operators on a Hilbert space, he guides readers through proofs of the Stinespring theorem and its applications to inequalities for positive maps. The text examines the maps' positivity properties, as well as their associated linear functionals together with their density operators. It features special sections on extremal positive maps and Choi matrices. In sum, this is a vital publication that covers a full spectrum of matters relating to positive linear maps, of which a large proportion is relevant and applicable to today's quantum information theory. The latter sections of the book present the material in finite

dimensions, while the text as a whole appeals to a wider and more general readership by keeping the mathematics as elementary as possible throughout. .
