

1. Record Nr.	UNINA9910483688503321
Autore	Inoue Atsushi <1944->
Titolo	Tomita's lectures on observable algebras in Hilbert space // Atsushi Inoue
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-68893-3
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (X, 190 p. 1 illus.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 2285
Disciplina	512.55
Soggetti	Operator algebras Àlgebres d'operadors Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	This book is devoted to the study of Tomita's observable algebras, their structure and applications. It begins by building the foundations of the theory of $T^*$ -algebras and $CT^*$ -algebras, presenting the major results and investigating the relationship between the operator and vector representations of a $CT^*$ -algebra. It is then shown via the representation theory of locally convex $*$ -algebras that this theory includes Tomita–Takesaki theory as a special case; every observable algebra can be regarded as an operator algebra on a Pontryagin space with codimension 1. All of the results are proved in detail and the basic theory of operator algebras on Hilbert space is summarized in an appendix. The theory of $CT^*$ -algebras has connections with many other branches of functional analysis and with quantum mechanics. The aim of this book is to make Tomita's theory available to a wider audience, with the hope that it will be used by operator algebraists and researchers in these related fields. .