TMP

O. Bratteli D. W. Robinson
Operator Algebras
and Quantum Statistical Mechanics 1

This is the first of two volumes presenting the theory of operator algebras with applications to quantum statistical mechanics. The authors' approach to the operator theory is to a large extent governed by the dictates of the physical applications. The book is self-contained and most proofs are presented in detail, which makes it a useful text for students with a knowledge of basic functional analysis. The introductory chapter surveys the history and justification of algebraic techniques in statistical physics and outlines the applications that have been made.

This revised second edition contains new and improved results. The principal changes include:

- A more comprehensive discussion of dissipative operators and analytic elements.
- The positive resolution of the question of whether maximal orthogonal probability measure on the state space of C^*-algebra were automatically maximal along all the probability measures on the space.

From the reviews of the first edition:

"The authors have excellently done the difficult job of exposing the subject matter which is a mixture of standard theory and new research work which has previously not appeared in book form. It is a good textbook for mathematicians and physicists who want to learn C^*-quantum physics."
Bulletin of the American Mathematical Society

ISSN 0172-5998

ISBN 3-540-17093-6

http://www.springer.de

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Second Edition

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C^*- and W^*-Algebras Symmetry Groups Decomposition of States

Second Edition

Springer