An introduction to a recent development in equilibrium statistical mechanics of quantum lattice systems.

H. Araki

Research Institute for Mathematical Sciences
Kyoto University
Sakyoku, Kyoto 606-8502, Japan

Abstract

In the first lecture, it is explained how to associate a unique potential (called a standard potential) with a given dynamics by a use of conditional expectations. Further, convenient properties of the so-defined standard potentials are illustrated. In the second lecture, different characterizations of equilibrium states and their equivalence will be explained.