R. Haag
Local Quantum Physics

This textbook gives a comprehensive account of local quantum physics, understood as the synthesis of quantum theory with the principle of locality. Centered on the algebraic approach it describes the physical concepts, the mathematical structures, and their consequences. These include the emergence of the particle picture, general collision theory covering the cases of massless particles and infraparticles, and the analysis of possible charge structures and exchange symmetries, including braid group statistics. Thermal states of an unbounded medium and local equilibrium are discussed in detail. The author, one of the most original researchers in this field, takes care both to describe the ideas and to give a critical assessment of future perspectives.
The new edition contains numerous improvements and a new chapter concerning formalism and interpretation of quantum theory.

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