THE HUBBARD MODEL

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THE HUBBARD MODEL

A Reprint Volume

edited by

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PREFACE

This book contains a collection of reprints on the Hubbard model. The major contributions to the subject since its origin are included, with the aim of providing all scientists working on the model and its applications with easy access to the relevant literature.

The book is divided into five parts. The first one is concerned with the physical origin and motivations of the model, whereas the remaining four sections are intended to present a coherent scenario of the different approaches to the model solution. The conceptual difficulty of the model is such that the exact and rigorous statistical mechanics results on it are relatively few (chapter 2). On the other hand, many relevant approximate results have been obtained in the strong coupling limit (chapter 3), and in other physically relevant limits (chapter 4). Furthermore, numerical Quantum Monte Carlo and exact diagonalization studies have also been shown to provide useful information (chapter 5).

Each section is preceded by commentary notes which introduce the papers presented (denoted by [#chapter.#order]), and add some references to papers not contained in the volume (quoted by [r#chapter.#order]).

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