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Sommario/riassunto

The first book dedicated to this new and powerful computational method begins with a comprehensive description of MCTDH and its theoretical background. There then follows a discussion of recent extensions of MCTDH, such as the treatment of identical particles, leading to the MCTDHF and MCTDHB methods for fermions and bosons. The third section presents a wide spectrum of very different applications to reflect the large diversity of problems that can be tackled by MCTDH.The result is handbook and ready reference for theoretical chemists, physicists, chemists, graduate students, lecturers and