

CONTENTS

Foreword	v
Preface	vii
N -body quantum systems: A tutorial	1
<i>Gian Michele Graf</i>	
A tutorial on computational approaches to quantum scattering	19
<i>Donald J. Kouri and David K. Hoffman</i>	
Time-independent wavepacket quantum mechanics	83
<i>Donald J. Kouri, Youhong Huang, and David K. Hoffman</i>	
Classical action and quantum N -body asymptotic completeness	103
<i>Gian Michele Graf and Daniel Schenker</i>	
On trace formulas for Schrödinger-type operators	121
<i>F. Gesztesy and H. Holden</i>	
Multiparticle quantum systems in constant magnetic fields	147
<i>I. Łaba</i>	
New channels of scattering for two-and three-body quantum systems with long-range potentials	217
<i>D. Yafaev</i>	
State-of-state transition probabilities and control of laser-induced dynamical processes by the (t, t') Method	225
<i>Nimrod Moiseyev</i>	
Barrier resonances and chemical reactivity	243
<i>Ronald S. Friedman and Donald G. Truhlar</i>	
Quantization in the continuum - complex dilated expansions of scattering quantities	283
<i>Nils Elander</i>	
Microscopic atomic and nuclear mean fields	319
<i>Claude Mahaux</i>	

The Pauli principle in multi-cluster states of nuclei	333
<i>Jens Bang</i>	
Nonperturbative approaches to atomic and molecular multiphoton (half-collision) processes in intense laser fields	343
<i>Shih-I Chu</i>	
Global recursion polynomial expansions of the Green's function and time evolution operator for the Schrödinger equation with absorbing boundary conditions	389
<i>Vladimir A. Mandelshtam</i>	