QUASIMOLECULAR MODELLING

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QUASIMOLECULAR MODELLING

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Preface

"If, in some cataclysm, all of scientific knowledge were to be destroyed, and only one sentence passed on to the next generations of creatures, what statement would contain the most information in the fewest words? I believe it is the *atomic hypothesis* (or the *atomic fact*, or whatever you wish to call it) that *all things are made of atoms — little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another*. In that one sentence, you will see, there is an *enormous* amount of information about the world, if just a little imagination and thinking are applied."

Richard Feynman
Lectures on Physics

In this monograph we have tried to apply "a little imagination and thinking" to modelling dynamical phenomena from a classical atomic and molecular point of view. Nonlinearity is emphasized, as are phenomena which are elusive from the continuum mechanics point of view. FORTRAN programs are provided in the Appendices. Throughout, the spirit is that in the quotation cited above.

D. Greenspan

Arlington, Texas
1990

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Contents

Preface	v
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Part I INTRODUCTION

Chapter 1	Quasimolecular Modelling: What It Is and What It Is Not	
1.1.	Introduction	3
1.2.	Classical Molecular Forces	5
1.3.	General Modelling Principles	6
1.4.	Numerical Solution	7
	Exercises	11

Part II QUANTITATIVE MODELLING

Chapter 2	Falling Water Drops	
2.1.	Introduction	19

	2.2. Mathematical, Physical, and Modelling Preliminaries	19
	2.3. Parameter Selection for Water Drops	21
	2.4. Dynamical Equations	26
	2.5. Examples	27
	Exercises	31
Chapter 3	Colliding Microdrops of Water	
	3.1. Introduction	33
	3.2. Mathematical and Physical Considerations for Water Molecule Interaction	33
	3.3. Examples	35
	Exercises	41
Chapter 4	Crack Development in a Stressed Copper Plate	
	4.1. Introduction	43
	4.2. Formula Derivation	43
	4.3. Examples	47
	Exercises	52
Chapter 5	Stress Wave Propagation in Slender Bars	
	5.1. Introduction	55
	5.2. Development of the Force Formulae	55
	5.3. Particle Modelling of a Slender Bar	58
	5.4. Examples	58
	Exercises	62
Chapter 6	Melting Points of Atomic Solids	
	6.1. Introduction	63
	6.2. Mathematical Preliminaries	63
	6.3. Model Formulation, Implementation and Results	65
	Exercises	67

Part III QUALITATIVE MODELLING**Chapter 7 Biological Self Reorganization**

7.1. Introduction	71
7.2. Cellular Self-Sorting	72
7.3. Dynamical Formulation	73
7.4. Examples	73
7.5. A Parameter Selection Process	77
Exercises	79

Chapter 8 Cavity Flow

8.1. Introduction	81
8.2. Example	81
8.3. Additional Examples	93
Exercises	93

Chapter 9 Turbulent and Nonturbulent Vortices

9.1. Introduction	95
9.2. Basic Definitions	96
9.3. Examples	99
9.4. Remark	105
Exercises	105

Chapter 10 Vortex Street Modelling

10.1. Introduction	107
10.2. Vortex Street Development without Fixed Boundaries	107
10.3. Vortex Development in an Open Ended Channel	110
Exercises	116

Chapter 11 Porous Flow

11.1. Introduction	117
11.2. Model Formulation	117
11.3. Examples	122
Exercises	122

Chapter 12 Q Modelling Combustion

12.1. Introduction	125
12.2. Model Formulation	125
12.3. Examples	127
12.4. Remarks	130
Exercises	130

Part IV CONSERVATIVE AND COVARIANT MODELLING**Chapter 13 Conservative Q Modelling**

13.1. Introduction	133
13.2. The Collisionless N -Body Problem	134
13.3. Conservative Numerical Solution of the Three-Body Problem	135
13.4. The Oscillatory Nature of Planetary Perihelion Motion	143
13.5. Remarks	146
Exercises	147

Chapter 14 Relativistic Motion

14.1. Introduction	149
14.2. The Concept of Simultaneity in Relativity	149
14.3. The Lorentz Transformation	150
14.4. Covariance	152
14.5. Relativistic Oscillation	154
14.6. Numerical Methodology	155

<i>Contents</i>	xi
14.7. A Relativistic Harmonic Oscillator	156
Exercises	159
 APPENDICES - FORTRAN Programs	
A. DROP.FOR	161
B. CRACK.FOR	164
C. CONSERVE.FOR	172
 References and Sources for Further Reading	177
 Subject Index	193