

## Contents

	<i>Preface</i>	<i>page</i> vi
1	Quarks and gluons	1
2	Lattices	5
3	Path integrals and statistical mechanics	8
4	Scalar fields	14
5	Fermions	20
6	Gauge fields	29
7	Lattice gauge theory	34
8	Group integration	39
9	Gauge-invariance and order parameters	51
10	Strong coupling	60
11	Weak coupling	77
12	Renormalization and the continuum limit	81
13	Asymptotic freedom and dimensional transmutation	88
14	Mean field theory	94
15	The Hamiltonian approach	101
16	Discrete groups and duality	108
17	Migdal–Kadanoff recursion relations	117
18	Monte Carlo simulation I: the method	127
19	Monte Carlo simulation II: measuring observables	140
20	Beyond the Wilson action	151
	<i>References</i>	162
	<i>Index</i>	167