

CONTENTS

Preface.....	v
Asymptotic Methods in the Theory of Rotating Fluids.....	1
S. N. BROWN AND K. STEWARTSON	
Singular Perturbation and Wave Front Techniques in Reaction-Diffusion Problems.....	23
PAUL C. FIFE	
A Nonlinear Renewal Equation with Periodic and Chaotic Solutions.....	51
FRANK C. HOPPENSTEADT	
Extremely Rapid Transient Phenomena in Combustion, Ignition and Explosion.....	61
DAVID R. KASSOY	
Numerical Methods for Singular Perturbation Problems.....	73
HEINZ-OTTO KREISS	
A Singular Perturbation Problem in the Theory of Population Extinction.....	87
DONALD LUDWIG	
Uniform Asymptotic Expansions and Singular Perturbations.....	105
F. W. J. OLVER	
Asymptotic Analysis of the Linearized Boltzmann Equation.....	119
MARK A. PINSKY	
Adiabatic Invariants and the Asymptotic Theory of Ordinary Linear Differential Equations.....	131
WOLFGANG WASOW	
Uniform Asymptotic Expansions for Numerical Solutions of Hyperbolic Equations.....	145
R. CHIN AND G. W. HEDSTROM	
Non-Linear Theory of a Caustic.....	147
E. CUMBERBATCH	
On the Possibility of Carrying out a Perturbation Analysis for Control Problems Involving Switch Points that Coalesce.....	149
MARVIN I. FREEDMAN	
The Use of Singular Perturbation Techniques as a Tool for Modeling Ecosystems.....	151
DAVID J. WOLLKIND AND JESSE A. LOGAN	
Energy-Release Rates that Cannot be Determined by Differentiating the Flaw Energy.....	153
CHIEN H. WU	