

Contents

<i>Preface</i>	v
Chapter I Elliptic Complex Equations of First Order	1
1. The Discontinuous Riemann-Hilbert Problem for Nonlinear Uniformly Elliptic Complex Equations of First Order	1
2. The Riemann-Hilbert Problem for Linear Degenerate Elliptic Complex Equations of First Order	11
3. The Discontinuous Riemann-Hilbert Problem for Quasilinear Degenerate Elliptic Complex Equations of First Order	24
4. The Riemann-Hilbert Problem for Degenerate Elliptic Complex Equations of First Order in Multiply Connected Domains	31
Chapter II Elliptic Complex Equations of Second Order	41
1. The Discontinuous Oblique Derivative Problem for Uniformly Elliptic Complex Equations	41
2. The Mixed Boundary Value Problem for Degenerate Elliptic Equations of Second Order	59
3. The Oblique Derivative Problem for Second Order Elliptic Equations with Nonsmooth Degenerate Line	80
4. Boundary Value Problems for Homogeneous Elliptic Equations of Second Order with Degenerate Rank 0	101
5. The Oblique Derivative Problem for Nonhomogeneous Elliptic Equations of Second Order with Degenerate Rank 0	113
Chapter III Hyperbolic Complex Equations of First and Second Orders	129
1. The Riemann-Hilbert Problem for Uniformly Hyperbolic Complex Equations of First Order	129

2. Boundary Value Problems for Degenerate Hyperbolic Complex Equations of First Order	141
3. The Oblique Derivative Problem for Uniformly Hyperbolic Equations of Second Order	151
4. The Oblique Derivative Problem for Degenerate Hyperbolic Equations of Second Order	162
5. The Oblique Derivative Problem for Second Order Hyperbolic Equations with Degenerate Rank 0	178
6. The Cauchy Problem for Hyperbolic Equations of Second Order with Degenerate Rank 0	189
Chapter IV First Order Complex Equations of Mixed Type	203
1. The Riemann-Hilbert Problem for First Order Complex Equations of Mixed Type.....	203
2. The Riemann-Hilbert Problem for First Order Linear Complex Equations of Mixed Type with Parabolic Degeneracy	214
3. The Discontinuous Riemann-Hilbert Problem for First Order Quasilinear Complex Equations of Mixed Type with Degenerate Line.....	229
4. The General Boundary Value Problem for Quasilinear Mixed Complex Equations with Degenerate Line	237
Chapter V Second Order Linear Equations of Mixed Type	247
1. The Oblique Derivative Problem for Second Order Equations of Uniformly Mixed Type.....	247
2. The Tricomi Problem for Second Order Degenerate Equations of Mixed Type	258
3. The Discontinuous Oblique Derivative Problem for Second Order Degenerate Equations of Mixed Type	282
4. The Exterior Tricomi-Rassias Problem for Second Order Degenerate Equations of Mixed Type.....	296

5. The Frankl Boundary Value Problem for Second Order Degenerate Equations of Mixed Type	318
Chapter VI Second Order Quasilinear Equations of Mixed Type	333
1. The Oblique Derivative Problem for Second Order Quasilinear Equations of Mixed Type	333
2. The Oblique Derivative Problem for Degenerate Equations of Mixed Type in General Domains	340
3. Boundary Value Problems for Degenerate Equations of Mixed Type in Multiply Connected Domains	361
4. The Oblique Derivative Problem for Equations of Mixed Type with Nonsmooth Degenerate Line	384
5. The Oblique Derivative Problem for Second Order Equations of Mixed Type with Degenerate Rank 0	398
<i>References</i>	415
<i>Index</i>	429