

Contents

<i>Chapter 1.</i> Basic Notions	1
<i>Chapter 2.</i> Vorticity	9
<i>Chapter 3.</i> Vortex Filaments	19
<i>Chapter 4.</i> Airfoils as Vortex Filaments	25
<i>Chapter 5.</i> Vortex Sheets	33
<i>Chapter 6.</i> Airfoil with Trailing Vortex Sheet	43
<i>Chapter 7.</i> Flat Airfoils	47
<i>Chapter 8.</i> Stationary Airfoil of Infinite Span	51
<i>Chapter 9.</i> Unsteady Motion of an Airfoil of Infinite Span with a Constant Profile	55
<i>Chapter 10.</i> Accelerating Wing—First Order Theory	65
<i>Chapter 11.</i> Oscillatory Wing. Flutter	69
<i>Chapter 12.</i> The Force Exerted by the Fluid on an Airfoil with a Trailing Vortex Sheet	73
<i>Chapter 13.</i> Extended Theory of Thin Airfoils	81
<i>Chapter 14.</i> Airfoil of Finite Span	89
<i>Chapter 15.</i> Discussion of the Velocity Field of a Flow Past an Airfoil of Finite Span	93
<i>Chapter 16.</i> Forces Acting on Airfoil of Finite Span	101
<i>Chapter 17.</i> Airfoil of Minimum Drag	105
<i>Chapter 18.</i> Determination of the Circulation	111
<i>Chapter 19.</i> Motion of Single Vortex Filaments	121
<i>Chapter 20.</i> Vortex Streets	133
<i>Chapter 21.</i> Viscous Fluid Flows	147
<i>Chapter 22.</i> Boundary Layer Theory	153
<i>Chapter 23.</i> Instability of Discontinuity Surface	163
<i>Chapter 24.</i> Stability of Shear Flow	169