

## *Contents*

<i>Preface</i>	<i>page</i> ix
<i>Nomenclature</i>	xi
<i>Abbreviations</i>	xvii
1 The Need and Methods for Studying Aerodynamics	1
2 Governing Equations	8
3 Mesh Generation	67
4 Numerical Methods	148
5 Turbulence	260
6 Advanced Simulation	362
7 Pre- and Post-Processing	459
8 Simulation in the Future	533
<i>Appendices</i>	
<i>A – Basic Finite Element Method</i>	549
<i>B – Discretization of the Equations for a Simple Pressure Correction Solver</i>	553
<i>C – TDMA Simultaneous Equation Solvers</i>	557
<i>Index</i>	561

*Color plates follow pages between 396 and 397*