

CONTENTS

<i>Abbreviations</i>	vi
<i>Nomenclature</i>	vii
<i>Preface</i>	ix
<i>Acknowledgements</i>	x

1	UNDERSTANDING AIR FLOWS	1
2	DRAG AND LIFT FORCES	20
3	THE INFLUENCE OF AERODYNAMICS ON ECONOMY, PERFORMANCE AND ROADHOLDING	50
4	THE AERODYNAMIC DESIGN OF FAMILY CARS	65
5	COMMERCIAL VEHICLES	101
6	RACING CARS AND OTHER HIGH-PERFORMANCE VEHICLES	131
7	INTERNAL AIR FLOWS - ENGINE AND TRANSMISSION COOLING	169
8	INTERNAL COMFORT - VENTILATION, HEATING, AIR- CONDITIONING AND NOISE	187
9	OPEN CABRIOLET VEHICLES	199
10	VEHICLES IN CROSS-WINDS	211
11	WIND-TUNNEL AND ROAD TESTING	230
12	COMPUTATIONAL FLUID DYNAMICS (CFD) METHODS	255

<i>Bibliography</i>	271
<i>Index</i>	273