Advanced Brake Technology
List of Chapters

1 Introduction
B. Breuer, U. Dausend, Darmstadt University of Technology

2 TMD Friction – Company Profile
TMD Friction Group, Corporate Communication

Part I
Basics, Materials and Methods

3 Braking from the Behavioural Scientist’s Viewpoint
B. Spiegel, Spiegel Institute Mannheim

4 New Material Technologies for Brakes
T. Haug, K. Rebstock, DaimlerChrysler AG

5 Investigation of the Thermal Behaviour of Vented Disc Brakes by Means of CFD
C. Repmann, Volkswagen AG

6 Future Utilization of Stationary Brake Design in Simulation and Analysis of Brake Systems
U. Sailer, D. Mahnkopf, S. Knoll, Robert Bosch GmbH

7 Controlling the Lateral Dynamics of Vehicles by Braking
T. van Zanten, R. Erhardt, K. Landesfeind, G. Pfaff, Robert Bosch GmbH

8 Development Tools to Assist in the Objective Description of Brake Pedal Feel
K. Augsburg, R. Trutschel, Ilmenau University of Technology

Part II
Brakes and Brake Systems

9 ABS for scooters
B. Fischenich, FTE automotive GmbH

10 BMW Motorrad’s New Integral ABS in Practical Testing
M. Braunsperger, S. Beulich, H.-A. Wagner, G. Heyl, BMW AG

11 SBC – The Electro-Hydraulic Brake System from Mercedes-Benz
U. Stoll, DaimlerChrysler AG

12 New mechatronic part disc brake
M. Semsch, Darmstadt University of Technology

13 Introduction into the Technology of Airvehicle Braking Systems
B. Ohly, formerly MBB, DASA (retired)

Part III
Test and Experiences

14 The Air Disc Brake in Commercial Vehicles - Field Experiences
A. Siebke, M. Gruber, R. Ober, Knorr-Bremse-Systeme für Nutzfahrzeuge GmbH

15 Effectiveness and Acceptance of Brake Tests in Commercial Vehicles During Periodical Vehicle Monitoring (HU und SP)
R. Staebler, H. Erhard, TÜV Verkehr und Fahrzeug GmbH

16 Brake Noise – A Comparison of Subjective and Objective Evaluations
W. Rumold, W. Keiper, Robert Bosch GmbH

17 Porsche Brake Development „From the Race Track to the Road“
D. Neudeck, R. Martin, N. Renzow, Dr.-Ing. h.c. F. Porsche AG

Part IV
Future Aspects and Outlook

18 Research on Tribological Characteristics between Al–MMC Brake Disc and Friction Material
K. Shibata, K. Kawasaki, Honda

19 Thoughts on the chassis of the future
U. Seiffert, Braunschweig University of Technology

20 Total Chassis Management – Heading for the Intelligent Chassis
H. A. Beller, P. E. Rieth, ContinentalTeves AG & Co. oHG

21 Automotive Technology – Where are we going?
W. Steiger, Volkswagen AG