

# Table of Contents

Preface .....	1
On Transition Mapping of Systems with Constraints .....	3
<i>Ladislav Adamec (Masaryk University, Brno)</i>	
Chaotic Behaviour of the Forced Damped Pendulum .....	9
<i>Balázs Bánhelyi (Institute of Informatics, University of Szeged, Hungary), Tibor Csendes (Institute of Informatics, University of Szeged, Hungary), Barnabás M. Garay (Budapest University of Technology, Hungary), and László Hatvani (Bolyai Institute, University of Szeged, Hungary)</i>	
Modeling a Wing in an Air Flow .....	21
<i>Boris P. Belinskiy (University of Tennessee at Chattanooga), John R. Graef (University of Tennessee at Chattanooga), and R. E. Melnik (University of Tennessee at Chattanooga)</i>	
Fourth-Order Quasilinear Boundary Value Problems.....	33
<i>Jiří Benedikt (University of West Bohemia, Plzeň)</i>	
Asymptotic Integration Revisited: The Legacy of Levinson's Method .....	39
<i>Sigrun Bodine (University of Puget Sound) and D.A. Lutz (San Diego State University)</i>	
A Geometric Approach to Differential Equation.....	51
<i>Gabriella Bognár (University of Miskolc, Miskolc)</i>	
Transformations and Canonical Forms for Delay Dynamic Equations .....	59
<i>Jan Čermák (Brno University of Technology)</i>	
Multipoint Variational Boundary Value Problem .....	67
<i>Valery Cherepennikov (Institute of System Dynamics and Control Theory of Sib. Dep. RAS., Irkutsk)</i>	
On the Solvability of a Linear BVP for System of ODEs on $\mathbb{R}_+$ .....	75
<i>Jitka Jandová (Masaryk University, Brno),     Bedřich Půža (Masaryk University, Brno)</i>	
On Linear BVPs for Systems of Integro-Differential Equations .....	85
<i>Gabriela Kraváčková (Masaryk University, Brno),     Bedřich Půža (Masaryk University, Brno)</i>	

On Constructing a Solution of a Multi-point BVP . . . . .	93
<i>Martina Kuchyňková (Masaryk University, Brno), Lukáš Maríásek (Masaryk University, Brno)</i>	
Asymptotic Estimation of Discrete Pantograph Eq. with a Forcing Term . . . . .	101
<i>Petr Kudrát (Brno University of Technology)</i>	
Galerkin-Characteristics Algorithm for Nonlinear Parabolic Equations . . . . .	107
<i>Mohammed Shuker Mahmood (University of Žilina, Žilina)</i>	
On the Global Existence and Stability of Mild Solutions of Delay Systems . . . . .	115
<i>Milan Medved' (Comenius University Bratislava)</i>	
Solution Structure for Functional Equations in $S$ . . . . .	123
<i>Jitka Laitochová (Palacký University Olomouc)</i>	
Hartman-Wintner Type Theorems . . . . .	131
<i>Zuzana Pátičková (Tomáš Bata University, Zlín)</i>	
Hille-Nehari Type Oscillation Criteria . . . . .	139
<i>Jana Řezníčková (Tomáš Bata University, Zlín)</i>	
On a System with a Singular Parabolic Equation . . . . .	149
<i>László Simon (L. Eötvös University Budapest)</i>	
Henstock-Kurzweil and McShane product integration . . . . .	157
<i>Antonín Slavík (Charles University, Prague)</i>	
Nonlinear Fredholm Alternative . . . . .	163
<i>Petr Tomiczek (University of West Bohemia Plzeň)</i>	
On Lyapunov-Type Integral Inequalities . . . . .	171
<i>Mehmet Ünal (Bahçeşehir University İstanbul)</i>	
On Orthogonal and Unitary Almost Periodic Difference Systems . . . . .	179
<i>Michal Veselý (Masaryk University, Brno)</i>	
Some Problems with the Kurzweil-Henstock Integral . . . . .	185
<i>Guoju Ye (Hohai University Nanjing)</i>	
Picone-Type Inequality and Oscillation Theorems . . . . .	193
<i>Norio Yoshida (University of Toyama)</i>	