Contents

1 Solvability of Some Integro-Differential Equations with Anomalous Diffusion .................................................. 1
   Vitali Vougalter and Vitaly Volpert

2 Poincaré Recurrences in Ergodic Systems Without Mixing ........ 19
   Vadim Anishchenko, Nadezhda Semenova, Elena Rybalova
   and Galina Strelkova

3 Success, Hierarchy, and Inequality Under Uncertainty .......... 51
   Dimitri Volchenkov

4 Functional Differential Equations with Piecewise Constant Argument ................................................................. 79
   M.U. Akhmet

5 Grazing in Impulsive Differential Equations ...................... 111
   M.U. Akhmet and A. Kivilcim

6 On Local Topological Classification of Two-Dimensional Orientable, Non-Orientable, and Half-Orientable Horseshoes .... 161
   S.V. Gonchenko, A.S. Gonchenko and M.I. Malkin

7 From Chaos to Order in a Ring of Coupled Oscillators with Frequency Mismatch .................................................. 181
   Alexander N. Pisarchik and Mariano Alberto García-Vellisca

8 Dynamics of Some Nonlinear Meromorphic Functions .......... 199
   P. Domínguez, M.A. Montes de Oca and G.J.F. Sienra

9 Dynamics of Oscillatory Networks with Pulse Delayed Coupling ................................................................. 219
   Vladimir Klinshov, Dmitry Shchapin, Serhiy Yanchuk
   and Vladimir Nekorkin
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Bifurcation Trees of Period-3 Motions to Chaos in a Time-Delayed Duffing Oscillator</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>Albert C.J. Luo and Siyuan Xing</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Travelable Period-1 Motions to Chaos in a Periodically Excited Pendulum</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td>Yu Guo and Albert C.J. Luo</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Automorphic Systems and Differential-Invariant Solutions</td>
<td>283</td>
</tr>
<tr>
<td></td>
<td>A.A. Talyshev</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Index</strong></td>
<td>309</td>
</tr>
</tbody>
</table>
Regularity and Stochasticity of Nonlinear Dynamical Systems
Volchenkov, D.; Leoncini, X. (Eds.)
2018, X, 311 p. 99 illus., 79 illus. in color., Hardcover
ISBN: 978-3-319-58061-6