

# Neural, Parallel, and Scientific Computations

Volume 27, 2019

---

## CONTENTS

|                                                                                                                                                                                         |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Anton Iliev, Nikolay Kyurkchiev, and Asen Rahnev</b><br>A New Improvement of Least Absolute Remainder Algorithm for Greatest Common Divisor. III                                     | <b>1-9</b>     |
| <b>Olga Rahneva, Todorka Terzieva, and Angel Golev</b><br>Investigations on the Zubair–Family with Baseline Ghosh–Bourguignon’s Extended Burr XII Cumulative Sigmoid. Some Applications | <b>11-22</b>   |
| <b>A. Iliev, N. Kyurkchiev, A. Rahnev, and T. Terzieva</b><br>Some New Approaches for Modelling Large–Scale Worm Spreading on the Internet. II                                          | <b>23-34</b>   |
| <b>A. Malinova, O. Rahneva, A. Golev, and V. Kyurkchiev</b><br>Investigations on the Odd–Burr–III–Weibull Cumulative Sigmoid. Some Applications                                         | <b>35-44</b>   |
| <b>E. Angelova, A. Golev, T. Terzieva, and O. Rahneva</b><br>A Study on a Hyper–Power–Logistic Model: Some Applications                                                                 | <b>45-57</b>   |
| <b>E. Angelova, A. Malinova, T. Terzieva, and O. Rahneva</b><br>A Note on the Modified Inverse Rayleigh Cumulative Sigmoid: Some Applications                                           | <b>59-69</b>   |
| <b>Nikolay Kyurkchiev and Anton Iliev</b><br>Investigations on a New Parametric Family of Sigmoidal Functions with Possible Application to Generate a New Class of Fuzzy Operators      | <b>85-92</b>   |
| <b>E. Angelova, T. Terzieva, V. Kyurkchiev, and O. Rahneva</b><br>On a Logistic Differential Model                                                                                      | <b>93-104</b>  |
| <b>E. Angelova, A. Malinova, V. Kyurkchiev, and O. Rahneva</b><br>Investigations on a Logistic Model with Weighted Exponential Gompertz Type Correction: Some Applications              | <b>105-114</b> |
| <b>N. Pavlov, G. Spasov, A. Iliev, A. Rahnev, and N. Kyurkchiev</b><br>A Note on the Song–Chang–Pham’s Software Reliability Model. Some Applications. I                                 | <b>115-129</b> |

|                                                                                                                                                                                                            |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>A. Malinova, T. Terzieva, A. Iliev, A. Rahnev, and N. Kyurkchiev</b><br>On Some Intrinsic Properties of the Chi and Weighted Erlang Cumulative<br>Distribution Functions                                | <b>131-139</b> |
| <b>Todorka Terzieva, Anton Iliev, Asen Rahnev, and N. Kyurkchiev</b><br>The Lomax–D–Generalized–Weibull Cumulative Sigmoid with<br>Applications to the Theory of Computer Viruses Propagation. IV          | <b>141-150</b> |
| <b>Angel Golev, Georgi Spasov, and Martin Stieger</b><br>A Note on the New Pham’s Software Reliability Model                                                                                               | <b>151-164</b> |
| <b>T. Terzieva, A. Iliev, A. Rahnev, and N. Kyurkchiev</b><br>Investigations on the Saturation of C. D. F. of the Modified ”Odd<br>Generalized Exponential Power Function Distribution”: Some Applications | <b>165-175</b> |
| <b>A. Malinova, O. Rahneva, T. Terzieva, and E. Angelova</b><br>Investigations on a ”Exponential–Exponentiated–Exponential” Growth<br>Model                                                                | <b>177-184</b> |
| <b>Georgi Spasov, Olga Rahneva, and Angel Golev</b><br>Comments on a New Software Reliability Model                                                                                                        | <b>185-200</b> |
| <b>Georgi Spasov, Olga Rahneva, and Angel Golev</b><br>Investigations on a New Software Reliability Model. II                                                                                              | <b>203-213</b> |
| <b>Content</b>                                                                                                                                                                                             | <b>215-216</b> |
| <b>Author Index</b>                                                                                                                                                                                        | <b>217-218</b> |