



**НАЦИОНАЛНА НАУЧНА ПРОГРАМА
„ИНФОРМАЦИОННИ И КОМУНИКАЦИОННИ ТЕХНОЛОГИИ ЗА ЕДИНЕН
ЦИФРОВ ПАЗАР В НАУКАТА, ОБРАЗОВАНИЕТО И СИГУРНОСТТА
(ИКТВНОС)“**

ПЛОВДИВСКИ УНИВЕРСИТЕТ „ПАИСИЙ ХИЛЕНДАРСКИ“

03.12.2019 г. – 30.11.2020 г.

СПИСЪК С НАУЧНИ ПУБЛИКАЦИИ

КОМПОНЕНТ 1

ЕЛЕКТРОННА ИНФРАСТРУКТУРА ЗА ОТВОРЕНА НАУКА И ОТВОРЕН ДОСТЪП ДО НАУЧНИ РЕЗУЛТАТИ

Работен пакет 1.1. Високопроизводителни и разпределени пресмятания

Научна задача 1.1.1. Интегриране на съвременните изчислителни системи и системи за съхранение на данни, софтуер, мидълуер и услуги; предоставяне на българските изследователи прозрачен и отворен достъп до изчислителната инфраструктура с цел разработване и експлоатация на изчислително интензивни научни приложения.

Публикации по задача 1.1.1.

1. Kyurkchiev, N., A. Iliev, A. Rahnev. On the Verhulst Growth model with “polynomial variable transfer”. Some applications. International Journal of Differential Equations and Applications, Volume 19, No. 1 (2020), pages: 15-32. ISSN (Print): 1311-2872; ISSN (Online): 1314-6084; doi: 10.12732/ijdea.v19i1.2 (Scopus, Zentralblatt MATH) https://pdfs.semanticscholar.org/1f92/0391fa5f2f4ead541796d7a0f646fa1db940.pdf?_ga=2.77677844.180374213.1590592699-43251917.1551805404
- Kyurkchiev, N., A. Iliev, A. Rahnev, T. Terzieva. Properties of a power Topp–Leone g–family with baseline Gompertz cumulative distribution function. International Journal of Differential Equations and Applications, Volume 19, No. 1 (2020), pages: 1-14. ISSN (Print): 1311-2872; ISSN (Online): 1314-6084; url: <https://www.ijdea.eu> (Scopus, Zentralblatt MATH) <http://ijpam.eu/en/index.php/ijdea/article/view/5883/223>
2. Kyurkchiev, N. A new class of activation functions. Some related problems and applications. Biomath, 9, 1, 2020, ISSN:1314-684X. doi: 10.11145/j.biomath.2020.05.033 (MathSciNet, zbMATH, Scopus)



ИКТ В НОС

<http://www.biomathforum.org/biomath/index.php/biomath/article/view/j.biomath.2020.05.033/pdf>

3. Kyurkchiev, N.. Some New Classes of Growth Functions Generated by Reaction Networks and Based on "Correcting Amendments" of Bateman–Gompertz and Bateman–Gompertz–Makeham–Type. I. Communications in Applied Analysis, 24, 1, 2020, ISSN:1083-2564, doi: 10.12732/caa.v24i1.2, 13-29. **SJR (Scopus):0.173**
<https://acadsol.eu/en/articles/24/1/2.pdf>
4. Iliev, I., Rahnev, A., Kyurkchiev, N.. On a Modifications of the Truncated Cauchy Power Weibull and Arcsine Exponentiated Weibull Models. Some Applications. Neural, Parallel, and Scientific Computations, 28, 1, 2020, ISSN:1061-5369, DOI:10.12732/npsc.v28i1.4, 37-48. **SJR (Scopus):0.129**
<https://acadsol.eu/npsc/articles/28/1/4.pdf>
5. N. Pavlov, A. Malinova, T. Terzieva, V. Kyurkchiev, A Note on the Applications of the Four–Parameter Marshall–Olkin Generalized Burr XII Cumulative Distribution Function. Neural, Parallel, and Scientific Computations, 28, No. 1 (2020), 1-12 ISSN: 1061-5369. **SJR (Scopus):0.129**
<https://acadsol.eu/npsc/articles/28/1/1.pdf>
6. A. Malinova, N. Pavlov, T. Terzieva, O. Rahneva. On The "Saturation" By The Type II. Topp–Leone Transmuted Inverted Kumaraswamy C.D.F. Neural, Parallel, and Scientific Computations, 28, No. 1 (2020), 27-35 ISSN: 1061-5369. **SJR (Scopus):0.129**
<https://acadsol.eu/npsc/articles/28/1/3.pdf>
7. Kyurkchiev, N.. On a Class of Growth Curves with Exponentially Variable Transfer Generated by Reaction Networks. II. International Electronic Journal of Pure and Applied Mathematics, 14, 1, 2020, ISSN:1314-0744, DOI:10.12732/iejpam.v14i1.3, 21-29 Международно академично издателство (ZentralBlatt)
<http://www.e.ijpam.eu/contents/articles/202001401003.pdf>
8. Iliev, I., Rahnev, A., Kyurkchiev, N.. Investigations on a New Gompertz-Extended-Generalized-Exponential (G-EGE) Cumulative Function. Communications in Applied Analysis, 24, 1, 2020, ISSN:1083-2564, DOI:10.12732/caa.v24i1.3, 31-45. **SJR (Scopus):0.156** <https://acadsol.eu/en/articles/24/1/3.pdf>

Публикувана монография в чужбина

9. Kyurkchiev, N., Iliev, A., Rahnev, A. A Look at the New Logistic Models with "Polynomial Variable Transfer". LAP LAMBERT Academic Publishing, 2020, ISBN: 978-620-2-56595-0, pp. 133.
https://www.researchgate.net/publication/341868069_A_Look_at_the_New_Logistic_Models_with_Polynomial_Variable_Transfer



РП.1.2. Компютърно и математическо моделиране с приложение в инженерните и природните науки

Задача 1.2.5. Предвиждане и гарантиране на качеството в човеко-кибер-физически системи

Публикации по задача 1.2.5.

1. Terzieva, T., A. Iliev, A. Rahnev, N. Kyurkchiev, Comments on a New Hyperbolic Sine-Weibull Model with Applications to the Theory of Computer Viruses Propagation. VI. International Journal of Differential Equations and Applications, Volume 18, No. 1 (2019), pages: 137-146. ISSN (Print): 1311-2872; ISSN (Online): 1314-6084. doi: 10.12732/ijdea.v18i1.12 (**Scopus, Zentralblatt MATH**)
<https://pdfs.semanticscholar.org/d758/e509452bbf6cc783cf0e4970bb7d27c86bd5.pdf>
2. Kyurkchiev, N., Iliev, A., Rahnev, A.. On the Half-logistic Model with "Polynomial Variable Transfer". Application to Approximate the Specific "Data Corona Virus". International Journal of Differential Equations and Applications, 19, 1, 2020, ISSN:1311-2872, DOI:10.12732/ijdea.v19i1.4, 45-61. индексирани **Scopus, Zentralblatt MATH**
<http://www.ijpam.eu/en/index.php/ijdea/article/view/5888/226>
3. Terzieva, T., Iliev, A., Rahnev, A., Kyurkchiev, N.. Comments on Some Modification of Suja Cumulative Functions with Applications to the Theory of Computer Viruses Propagation. VII. International Journal of Differential Equations and Applications, 19, 1, 2020, ISSN:1311-2872, DOI:10.12732/ijdea.v19i1.6, 83-95 индексирани в WoS или Scopus (Scopus)
<http://www.ijpam.eu/en/index.php/ijdea/article/viewFile/5905/228>
4. T. Terzieva, N. Pavlov, A. Malinova, E. Angelova, Properties of some truncated families of cumulative distribution function, Neural, Parallel, and Scientific Computations, 28, No. 1 (2020), 13-25 ISSN: 1061-5369. **SJR (Scopus):0.129**
<https://acadsol.eu/npsc/articles/28/1/2.pdf>
5. Kyurkchiev, N., Iliev, A., Rahnev, A., Terzieva, T.. Another look at a good approximation of data for the distribution of COVID-19 in Cuba. Revista Habanera de Ciencias Médicas, 19, 3, 2020, ISSN:1729-519X, 1-9. **SJR (Scopus): 0.125** Q4 (Scopus) **ЛИНК:**
https://www.researchgate.net/publication/342764938_Another_look_at_a_good_approximation_of_data_for_the_distribution_of_COVID-19_in_Cuba
<http://www.revhabanera.sld.cu/index.php/rhab/article/view/3445/2597>

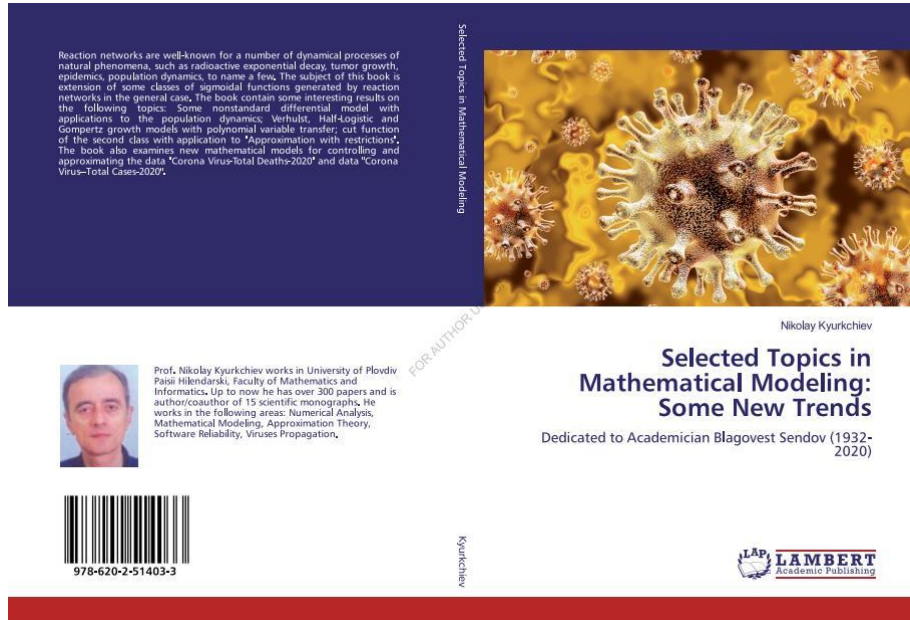
Публикувани монографии в чужбина

1. N. Kyurkchiev, Selected Topics in Mathematical Modeling: Some New Trends (Dedicated to Academician Blagovest Sendov (1932-2020)), LAP LAMBERT Academic Publishing, (2020); ISBN: 978-620-2-51403-3.



ИКТ в НОС

<https://www.researchgate.net/publication/340023347> Selected Topics in Mathematical Modeling Some New Trends Dedicated to Academician Blagovest Sendov 1932-2020



2. Olga Rahneva, Angel Golev, Georgi Spasov, Investigations on Some New Models in Debugging and Growth Theory (Part 3), LAP LAMBERT Academic Publishing, 2020, ISBN: 978-620-66655-8.

<https://www.researchgate.net/publication/341932436> Investigations on Some New Models in Debugging and Growth Theory Part 3

<https://www.morebooks.de/store/gb/book/investigations-on-some-new-models-in-debugging-and-growth-theory/isbn/978-620-2-66655-8>

В България:

3. Nikolay Kyurkchiev, Anton Iliev, Angel Golev, Asen Rahnev, Some Non-standard Models in "Debugging and Test Theory" (Part 4), Plovdiv University Press, 2020, ISBN: 978-619-2-02584-7.

<https://www.researchgate.net/publication/343827990> Some Non-standard Models in "Debugging and Test Theory" Part 4



РП.2.1. Отворени образователни ресурси

Научна задача 2.1.1 Създаване на общодостъпни образователни ресурси

1. Terzieva, T., V. Arnaudova, A. Rahnev, V. Ivanova, Technologies and tools for creating adaptive e-learning content, Mathematics and Informatics, Volume 63, Number 4, 2020, SSN 1314–8532 (Online); ISSN 1310–2230 (Print). Web of Science
<https://mathinfo.azbuki.bg/en/matematics/sadarzhanie-na-sp-matematika-i-informatika-2020-g/sp-matematika-i-informatika-knizhka-4-2020-godina-lxiii/>
2. Gaydarova, M., T. Terzieva, A. Rahnev, Teaching during distance learning – shared experience of bulgarian teachers, Education and technologies, VOL. 11/2020, ISSUE 1, ISSN 1314 1791 (print), ISSN 2535 1214 (online), pp. 7-14.
http://www.edutechjournal.org/?page_id=376
3. Spirova, M., T. Terzieva and A. Rahnev, Digital Learning Environments. Proceedings of the Anniversary International Scientific Conference “Synergetics and Reflection in Mathematics Education”, 16-18 October 2020, Pamporovo, Bulgaria, ISBN: 978-619-202-595-3, pp. 301-310.
<http://fmi-plovdiv.org/GetResource?id=3711>
4. Todorova, E., S. Aneva and T. Terzieva, Creating a reflection in the informatics teaching by applying adapted ALACT Model., Proceedings of the Anniversary International Scientific Conference “Synergetics and Reflection in Mathematics Education”, 16-18 October 2020, Pamporovo, Bulgaria, ISBN: 978-619-202-595-3, pp. 311-318.
<http://fmi-plovdiv.org/GetResource?id=3712>
5. Ivelina Velcheva, Kosta Garov, Reflection in information technology training implemented during distance education, Proceedings of the Anniversary International Scientific Conference “Synergetics and Reflection in Mathematics Education”, 16-18 October 2020, Pamporovo, Bulgaria, ISBN: 978-619-202-595-3, pp. 349-355.
<http://fmi-plovdiv.org/GetResource?id=3718>

РП 2.3. Съвременни средства за цифровизация в образованието и работата с млади таланти

Научна задача 2.3.1: Добавена виртуална реалност в обучението (M01 – M24)

1. Y. Chukanska, T. Terzieva, O. Rahneva and G. Koleva, Design and development of 3D Music instruments for training children with special needs, Proceedings of the Anniversary International Scientific Conference “Synergetics and Reflection in Mathematics Education”, 16-18 October 2020, Pamporovo, Bulgaria, ISBN: 978-619-202-595-3, pp. 221-228.



<http://fmi-plovdiv.org/GetResource?id=3700>

2. Golev, A., A. Rahnev and T. Terzieva, NSP „ICTinSES“ – Achieved Results from the FMI Team at PU. I, Proceedings of the Anniversary International Scientific Conference “Synergetics and Reflection in Mathematics Education”, 16-18 October 2020, Pamporovo, Bulgaria, ISBN: 978-619-202-595-3, pp. 251-258.
<http://fmi-plovdiv.org/GetResource?id=3704>

Научна задача 2.3.2 Тримерни модели за онагледяването на учебно съдържание (M09 – M36)

1. K. Garov, G. Koleva and N. Todorova. Computer modeling to help educate children with special educational needs, Proceedings of the Anniversary International Scientific Conference “Synergetics and Reflection in Mathematics Education”, 16-18 October 2020, Pamporovo, Bulgaria, ISBN: 978-619-202-595-3, pp. 235-244.
<http://fmi-plovdiv.org/GetResource?id=3702>