

## Díjazott publikációk, Informatikai Kar, 2023

### Folyóiratcikkek, Q1

1. Burai, P., Kiss, G., **Szokol, P.**: A dichotomy result for strictly increasing bisymmetric maps. *J. Math. Anal. Appl.* **526** (2), 1-9, 2023.
2. Csoba, I., **Kunkli, R.**: Rendering algorithms for aberrated human vision simulation. *Vis. Comput. Ind. Biomed. Art.* **6** 1-25, 2023.
3. **Fazekas, A.**, Kovács, G.: Optimal binning for a variance based alternative of mutual information in pattern recognition. *Neurocomputing.* **519** 135-147, 2023.
4. Fazekas, L., Szabó, B., Szegeczki, V., Fillér, C., Varga, Á., **Godó, Z.**, Tóth, G., Reglódi, D., Juhász, T., Németh, N.: Impact Assessment of Pituitary Adenylate Cyclase Activating Polypeptide (PACAP) and Hemostatic Sponge on Vascular Anastomosis Regeneration in Rats. *Int. J. Mol. Sci.* **24** 1-24, 2023.
5. Liu, Y., Zhou, S., Wang, L., Xu, M., Huang, X., Li, Z., **Hajdu, A.**, Zhang, L.: Machine learning approach combined with causal relationship inferring unlocks the shared pathomechanism between COVID-19 and acute myocardial infarction. *Front. Microbiol.* **14** 1-10, 2023.
6. Mester, T., Benkhard, B., Vasvári, M., Csorba, P., Kiss, E., **Balla, D.**, Fazekas, I., Csépes, E., Barkat, A., Szabó, G.: Hydrochemical Assessment of the Kisköre Reservoir (Lake Tisza) and the Impacts of Water Quality on Tourism Development. *Water.* **15** (8), 1-17, 2023.
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9. **Szabó, M.**, Gascón, E., **Baran, S.**: Parametric Postprocessing of Dual-Resolution Precipitation Forecasts. *Weather Forecast.* **38** (8), 1313-1322, 2023.
10. **Szeghalmy, S.**, **Fazekas, A.**: A Comparative Study of the Use of Stratified Cross-Validation and Distribution-Balanced Stratified Cross-Validation in Imbalanced Learning. *Sensors.* **23** (4), 1-27, 2023.
11. Xie, Y., **Oniga, I.**: Classification of Motor Imagery EEG Signals Based on Data Augmentation and Convolutional Neural Networks. *Sensors.* **23** (4), 1-16, 2023.
12. **CMS Collaboration**, Tumasyan, A., Adam, W., Andrejkovic, J.: Measurement of the Dependence of the Hadron Production Fraction Ratios  $f_{s}/f_{u}$  and  $f_{d}/f_{u}$  on B Meson Kinematic Variables in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV. *Phys. Rev. Lett.* **131** (12), 1-18, 2023.
13. **CMS Collaboration**, Bartók, M., Tumasyan, A.: Observation of Same-Sign Production from Double Parton Scattering in Proton-Proton Collisions at  $s = 13$  TeV. *Phys. Rev. Lett.* **131** (9), 1-20, 2023.
14. **CMS Collaboration**, Hayrapetyan, A.: Observation of the Rare Decay of the [eta] Meson to Four Muons. *Phys. Rev. Lett.* **131** (9), 1-19, 2023.
15. **CMS Collaboration**, Tumasyan, A., Adam, W., Andrejkovic, J.: Search for a heavy composite Majorana neutrino in events with dilepton signatures from proton-proton collisions at. *Phys. Lett. B.* **843** 1-25, 2023.
16. **CMS Collaboration**, Tumasyan, A., Andrejkovic, J., Adam, W.: Search for Exotic Higgs Boson Decays  $H \rightarrow AA \rightarrow 4\gamma$  with Events Containing Two Merged Diphotons in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV. *Phys. Rev. Lett.* **131** (10), 1-19, 2023.
17. **CMS Collaboration**, Tumasyan, A., Adam, W., Andrejkovic, J.: Search for Higgs Boson Decay to a Charm Quark-Antiquark Pair in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV. *Phys. Rev. Lett.* **131** (6), 1-8, 2023.
18. The CMS Collaboration, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., **Ujvári, B.**: Measurement of the tt charge asymmetry in events with highly Lorentz-boosted top quarks

- in pp collisions at  $\sqrt{s} = 13$  TeV. *Phys. Lett. B.* **846** 1-27, 2023.
19. The CMS Collaboration, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., Trócsányi, Z., **Ujvári, B.**: Observation of electroweak  $W^+W^-$  pair production in association with two jets in proton-proton collisions at  $\sqrt{s}=13$  TeV. *Phys. Lett. B.* **841** 1-25, 2023.
  20. **CMS Collaboration**, Tumasyan, A., Adam, W., Andrejkovic, J.: Probing Small Bjorken-x Nuclear Gluonic Structure via Coherent  $J/\psi$  Photoproduction in Ultrapерipheral Pb-Pb Collisions at  $\sqrt{s_{NN}} = 5.02$  TeV. *Phys. Rev. Lett.* **131** (26), 1-22, 2023.
  21. The CMS Collaboration, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., **Ujvári, B.**: Search for new heavy resonances decaying to  $WW$ ,  $WZ$ ,  $ZZ$ ,  $WH$ , or  $ZH$  boson pairs in the all-jets final state in proton-proton collisions at  $\sqrt{s} = 13$  TeV. *Phys. Lett. B.* **844** 1-28, 2023.
  22. **CMS Collaboration**, Hayrapetyan, A., Tumasyan, A., Adam, W.: Search for the lepton-flavor violating decay of the Higgs boson and additional Higgs bosons in the  $e\mu$  final state in proton-proton collisions at  $\sqrt{s} = 13$  TeV. *Phys. Rev. D* **108** (7), 1-27, 2023.

## Folyóiratcikkek, Q2

1. **Baran, S., Nagy-Lakatos, M.**: Statistical post-processing of visibility ensemble forecasts. *Meteorol. Appl.* **30** (5), 1-18, 2023.
2. Barkat, A., Bouaicha, F., Ziad, S., Mester, T., Sajtos, Z., **Balla, D.**, Makhloufi, I., Szabó, G.: The Integrated Use of Heavy-Metal Pollution Indices and the Assessment of Metallic Health Risks in the Phreatic Groundwater Aquifer-The Case of the Oued Souf Valley in Algeria. *Hydrology.* **10** (10), 1-27, 2023.
3. **Battyányi, P.**, Karim, N.: Normalization in the simply typed lambda mu mu' rho theta epsilon-calculus. *Math. Struct. Comput. Sci.* **32** (8), 1066-1098, 2023.
4. Benkhard, B., Csorba, P., Mester, T., **Balla, D.**, Kiss, E., Szabó, G., Fazekas, I., Vass, R., Rooien, A., Vasvári, M.: Effects of Mosaic Natural Conditions on the Tourism Management of a Lowland Water Reservoir, Lake Tisza, Hungary. *Land.* **12** (12), 1-19, 2023.
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6. **Csernoch, M.**, Nagy, K., Nagy, T.: The Entropy of Digital Texts - The Mathematical Background of Correctness. *Entropy.* **25** (2), 1-34, 2023.
7. Efrosinin, D., Stepanova, N., **Sztrik, J.**: Robustness of the  $c[\mu]$ -Rule for an Unreliable Single-Server Two-Class Queueing System with Constant Retrial Rates. *Mathematics.* **11** (18), 1-14, 2023.
8. **Fazekas, I., Fórián, L., Barta, A.**: Deep Learning from Noisy Labels with Some Adjustments of a Recent Method. *Infocommun. J.* **15** (Special), 9-12, 2023.
9. Fischer, S., Liegner, N., Bocz, P., Vinkó, Á., **Terdik, G.**: Investigation of Track Gauge and Alignment Parameters of Ballasted Railway Tracks Based on Real Measurements Using Signal Processing Techniques. *Infrastructures.* **8** (2), 1-21, 2023.
10. **Gilányi, A.**, To, L.: Computer assisted investigation of alienness of linear functional equations. *Aequ. Math.* **97** 1185-1199, 2023.
11. **Hannusch, C., Pethő, A.**: Rotation on the digital plane. *Period. Math. Hung.* **86** (2), 564-577, 2023.
12. **Harangi, B., Baran, Á., Beregi-Kovács, M., Hajdu, A.**: Composing Diverse Ensembles of Convolutional Neural Networks by Penalization. *Mathematics.* **11** (23), 1-19, 2023.
13. Jeganathan, K., Harikrishnan, T., Lakshmanan, K., Melikov, A., **Sztrik, J.**: Modeling of Junior Servers Approaching a Senior Server in the Retrial Queueing-Inventory System. *Mathematics.* **11** (22), 1-31, 2023.
14. Kovács, Á., Csernátóny, Z., Csámer, L., Méhes, G., Szabó, D., Veres, M., Braun, M., **Harangi, B.**, Serbán, N., Zhang, L., Falk, G., Soósne Horváth, H., Manó, S.: Comparative Analysis of Bone Ingrowth in 3D-Printed Titanium Lattice Structures with Different Patterns. *Materials.* **16** (10), 1-16, 2023.
15. **Kruppa, K., Kunkli, R., Hoffmann, M.**: A skinning technique for modeling artistic disk B-

- spline shapes. *Comput. Graph.-UK*. **115** 96-106, 2023.
16. Melikov, A., Mirzayev, R., **Sztrik, J.**: Double-Sources Queuing-Inventory Systems with Finite Waiting Room and Destructible Stocks. *Mathematics*. **11** (1), 226-, 2023.
  17. Melikov, A., Poladova, L., Edayapurath, S., **Sztrik, J.**: Single-Server Queuing-Inventory Systems with Negative Customers and Catastrophes in the Warehouse. *Mathematics*. **11** (10), 1-16, 2023.
  18. Nagy, K., **Csernoch, M.**: Pre-testing erroneous text-based documents: Logging end-user activities. *Front. Educ.* **7** 1-11, 2023.
  19. **Oláh, N.**, Molnár, B., **Husztí, A.**: Secure Registration Protocol for the Internet of Drones Using Blockchain and Physical Unclonable Function Technology. *Symmetry*. **15** (10), 1-19, 2023.
  20. Ozkar, S., Melikov, A., **Sztrik, J.**: Queueing-Inventory Systems with Catastrophes under Various Replenishment Policies. *Mathematics*. **11** (23), 1-24, 2023.
  21. Pándy, Á., **Kovács, L.**, Kovács, Á., **Hajdu, A.**: Steering Angle Prediction From a CameraImage as a Backup Service. *IEEE Sens. Lett.* **7** (11), 1-4, 2023.
  22. Péntek, I., **Adamkó, A.**: Monitoring Pandemics, using Sensor Data from Smart Ecosystems. *Acta Polytech. Hung.* **20** (5), 75-90, 2023.
  23. **Sütő, J.**: Hardware and Software Support for Insect Pest Management. *Agriculture-Basel*. **13** (9), 1-2, 2023.
  24. Szutor, P., **Bodroginé Zichar, M.**: Fast Radius Outlier Filter Variant for Large Point Clouds. *Data*. **8** 1-13, 2023.
  25. Talbi, D., **Gál, Z.**: Decomposition Based Congestion Analysis of the Communication in B5G/6G TeraHertz High-Speed Networks. *Infocommun. J.* **15** (Special), 43-48, 2023.
  26. **Tóth, J.**, **Tomán, H.**, Hajdu, G., **Hajdu, A.**: Using Noisy Evaluation to Accelerate Parameter Optimization of Medical Image Segmentation Ensembles. *Mathematics*. **11** (18), 1-17, 2023.
  27. **Tóth, R.**, **Hoffmann, M.**, **Bodroginé Zichar, M.**: Lossless Encoding of Mental Cutting Test Scenarios for Efficient Development of Spatial Skills. *Educ. Sci.* **13** (2), 1-21, 2023.
  28. **Tóth, R.**, Tóth, B., **Hoffmann, M.**, **Bodroginé Zichar, M.**: viskillz-blender - A Python package to generate assets of Mental Cutting Test exercises using Blender. *SoftwareX*. **22** 1-6, 2023.
  29. **CMS Collaboration**, Tumasyan, A., Adam, W., Andrejkovic, J.: Performance of the local reconstruction algorithms for the CMS hadron calorimeter with Run 2 data. *J. Instrum.* **18** (11), 1-37, 2023.
  30. The CMS Collaboration, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., **Ujvári, B.**, TOTEM Collaboration: Proton reconstruction with the CMS-TOTEM Precision Proton Spectrometer. *J. Instrum.* **18** (09), 1-79, 2023.
  31. The CMS Collaboration, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., **Ujvári, B.**: Search for long-lived particles decaying to a pair of muons in proton-proton collisions at  $\sqrt{s} = 13$  TeV. *J. High Energy Phys.* **2023** (5), 1-58, 2023.
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  33. **The CMS Collaboration**, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., Ujvári, B.: Search for nonresonant Higgs boson pair production in the four leptons plus twob jets final state in proton-proton collisions at  $\sqrt{s}= 13$  TeV. *J. High Energy Phys.* **2023** (6), 1-41, 2023.
  34. The CMS Collaboration, Tumasyan, A., Adam, W., Andrejkovic, J., Raics, P., **Ujvári, B.**: Search for top squarks in the four-body decay mode with single lepton final states in proton-proton collisions at  $\sqrt{s} = 13$  TeV. *J. High Energy Phys.* **2023** (6), 1-51, 2023.