

An alternative approach to distinguish movements of Parkinson disease patients

Nõmm, Sven; Toomela, Aaro; Vaske, Martti; Uvarov, Dan; Taba, Pille IFAC-PapersOnLine 2016 / p. 272-276 : ill

<https://doi.org/10.1016/j.ifacol.2016.10.546> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

CNN based analysis of the Luria's alternating series test for Parkinson's disease diagnostics

Zarembo, Sergei; Nõmm, Sven; Medijainen, Kadri; Taba, Pille; Toomela, Aaro Recent Challenges in Intelligent Information and Database Systems : 13th Asian Conference, ACIDS 2021, Phuket, Thailand, April 7–10, 2021 : proceedings 2021 / p. 3-13

https://doi.org/10.1007/978-981-16-1685-3_1 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Comparison of one- two- and three-dimensional CNN models for drawing-test-based diagnostics of the Parkinson's disease

Wang, Xuechao; Huang, Junqing; Chatzakou, Marianna; Nõmm, Sven; Valla, Elli; Medijainen, Kadri; Taba, Pille; Toomela, Aaro; Ruzhansky, Michael Biomedical signal processing and control 2024 / art. 105436, 8 p <https://doi.org/10.1016/j.bspc.2023.105436>

Coordination of zinc ions to the key proteins of neurodegenerative diseases: A[β], APP, [alpha]-synuclein and PrP

Tõugu, Vello; Palumaa, Peep Coordination chemistry reviews 2012 / p. 2219-2224 : ill

https://www.researchgate.net/publication/236131300_Coordination_of_zinc_ions_to_the_key_proteins_of_neurodegenerative_diseases_Ab_APP_a-synuclein_and_PrP

Deep CNN based classification of the Archimedes spiral drawing tests to support diagnostics of the Parkinson's disease

Nõmm, Sven; Zarembo, Sergei; Medijainen, Kadri; Taba, Pille; Toomela, Aaro IFAC-Papers OnLine 2020 / p. 260-264

<https://doi.org/10.1016/j.ifacol.2021.04.185> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Deep Learning Based Segmentation of Luria's Alternating Series Test to Support Diagnostics of Parkinson's Disease

Valla, Elli; Laur, Henry; Nõmm, Sven; Medijainen, Kadri; Taba, Pille; Toomela, Aaro 2023 International Conference on Machine Learning and Applications (ICMLA) 2023 / p. 1066-1071 : ill <https://doi.org/10.1109/ICMLA58977.2023.00158>

Detailed analysis of the Luria's alternating series tests for Parkinson's disease diagnostics

Nõmm, Sven; Bardoš, Konstantin; Toomela, Aaro; Medijainen, Kadri; Taba, Pille 17th IEEE International Conference on Machine Learning and Applications : ICMLA 2018, 17–20 December 2018, Orlando, Florida, USA : proceedings 2018 / p. 1347–1352

<https://doi.org/10.1109/ICMLA.2018.00219>

Determining necessary length of the alternating series test for Parkinson's disease modelling

Nõmm, Sven; Kossas, Tanel; Toomela, Aaro; Medijainen, Kadri; Taba, Pille 2019 International Conference on Cyberworlds : CW 2019 : 2-4 October 2019, Kyoto, Japan : proceedings 2019 / p. 261-266 : ill <http://doi.org/10.1109/CW.2019.00050>

Eesti tänavused teadussaavutused ulatuvad mammutitest vesinikuni

Pärn, Rein Postimees 2024 / lk. 10-11 <https://dea.digar.ee/article/postimees/2024/12/31/7.1> <https://teadus.postimees.ee/8163134/eesti-teadussaavutused-aastal-2024-mammutitest-vesinikuni>

An efficient neural network for the diagnosis of Parkinson's disease using dynamic handwriting analysis

Wang, Xuechao; Nõmm, Sven; Huang, Junqing; Chatzakou, Marianna; Ruzhansky, Michael Extended Abstracts MWCAPDE 2023 : Methusalem Workshop on Classical Analysis and Partial Differential Equations 2024 / p. 97 - 104 https://doi.org/10.1007/978-3-031-41665-1_11 [Article Collection metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

GDNF - a stranger in the TGF-beta superfamily

Saarma, Mart European journal of biochemistry 2000 / p. 6968-6971 <https://pubmed.ncbi.nlm.nih.gov/11106404/>

Generative adversarial networks as a data augmentation tool for CNN-based Parkinson's disease diagnostics

Dzotsenidze, Erik; Valla, Elli; Nõmm, Sven; Medijainen, Kadri; Taba, Pille; Toomela, Aaro IFAC-Papers OnLine 2022 / p. 108-113 : ill <https://doi.org/10.1016/j.ifacol.2022.10.240> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

In silico approach to finding new scaffolds for LRRK2 inhibition

Kahn, Iiris; Lomaka, Andre; Karelson, Mati European Pharma Summit : Berlin, Germany, May 5-8, 2015 : abstracts 2015 / [1] p

Interpretable quantitative description of the digital clock drawing test for Parkinson's disease modelling

Nõmm, Sven; Mašarov, Ilja; Toomela, Aaro; Medijainen, Kadri; Taba, Pille 15th International Conference on Control, Automation, Robotics and Vision (ICARCV 2018) : Singapore, November 18-21, 2018 2018 / p. 1839-1844 : ill

<https://doi.org/10.1109/ICARCV.2018.8581074>

Intrastrially infused exogenous CDNF is endocytosed and retrogradely transported to substantia nigra

Mätlik, Kert; Vihinen, Helena; Bienemann, Ali; Palgi, Jaan; Arumäe, Urmas eNeuro 2017 / art. e0128-16.2017, p. 1-15 : ill

<https://doi.org/10.1523/ENEURO.0128-16.2017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Leveraging artificial intelligence for microkinematic analysis of fine motor skills in Parkinson's disease detection =

Tehisintellekti rakendamise peenmotoorika mikrokinemaatilises analüüsis Parkinsoni tõve tuvastamiseks

Valla, Elli 2025 <https://digikogu.taltech.ee/et/Item/e7c8ea35-6739-43fc-8f24-0c8607c62346> <https://doi.org/10.23658/taltech.26/2025>
https://www.ester.ee/record=b5747730*est

A light-weight CNN model for efficient Parkinsons disease diagnostics

Wang, Xuechao; Huang, Junqing; Chatzakou, Marianna; Medijainen, Kadri; Taba, Pille; Toomela, Aaro; **Nõmm, Sven**; Ruzhansky, Michael 36th IEEE International Symposium on Computer-Based Medical Systems, CBMS 2023, Aquila, 22-24 June 2023 2023 / p. 616-621 <https://doi.org/10.1109/CBMS58004.2023.00289> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

LSTM-CNN : an efficient diagnostic network for Parkinson's disease utilizing dynamic handwriting analysis

Wang, Xuechao; Huang, Junqing; Chatzakou, Marianna; Medijainen, Kadri; Toomela, Aaro; **Nõmm, Sven**; Ruzhansky, Michael Computer Methods and Programs in Biomedicine 2024 / art. 108066 <https://doi.org/10.1016/j.cmpb.2024.108066> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Machine learning based analysis of the upper limb freezing during handwriting in Parkinson's disease patients

Gorbatšov, Vassili; Valla, Elli; Nõmm, Sven; Medijainen, Kadri; Taba, Pille; Toomela, Aaro IFAC-PapersOnLine 2022 / p. 91-95 <https://doi.org/10.1016/j.ifacol.2022.10.237> [Conference Proceeding metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Mart Saarma : oleme alles pika-pika tee alguses

Saarma, Mart; Kressa, Kaarel Eesti Päevaleht 2009 / 3. okt., Laupäev, lk. 11-13 : fot <https://epl.delfi.ee/artikkel/51179225/mart-saarma-oleme-alles-pika-pika-matka-alguses>

Mart Saarma tööühm avastas ajurakke kaitsva valgu

Kändler, Tiit Eesti Päevaleht 2007 / lk. 24 <https://www.postimees.ee/1682065/mart-saarma-tooruhm-avastas-ajurakke-kaitsva-valgu>

Mathematical and physical modelling of the dynamic electrical impedance both of a healthy neuron and one affected by Parkinson's disease

Giannoukos, Georgios Advances in applied information science : proceedings of the 12th WSEAS International Conference on Applied Informatics and Communications (AIC '12) : proceedings of the 5th WSEAS International Conference on Biomedical Electronics and Biomedical Informatics (BEBI '12) : Istanbul, Turkey, August 21-23, 2012 2012 / p. 79-84 : ill https://www.researchgate.net/publication/264128963_Mathematical_and_Physical_Modelling_of_the_Dynamic_Electrical_Impedance_of_a_Neuron

Mathematical and physical modelling of the dynamic electrical impedance of a neuron

Giannoukos, Georgios; Min, Mart International journal of circuits, systems and signal processing 2012 / p. 359-366 : ill https://www.researchgate.net/publication/264128963_Mathematical_and_Physical_Modelling_of_the_Dynamic_Electrical_Impedance_of_a_Neuron

Novel neurotrophic factor CDNF protects and rescues midbrain dopamine neurons in vivo

Lindholm, Päivi; **Timmusk, Tõnis; Saarma, Mart** Nature 2007 / p. 73-77 <https://doi.org/10.1038/nature05957>

Paljulubav Parkinsoni tõve ravim on katsetamisjärgus [Võrguväljaanne]

Arumäe, Urmas novaator.err.ee 2019 / fot [Paljulubav Parkinsoni tõve ravim on katsetamisjärgus](#)

Parkinson's disease diagnostics based on the analysis of digital sentence writing test

Netšunajev, Aleksei; Nõmm, Sven; Toomela, Aaro; Medijainen, Kadri; Taba, Pille Vietnam journal of computer science 2021 / p. 493-512 <https://doi.org/10.1142/S2196888821500238> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Quantitative analysis in the digital Luria's alternating series tests

Nõmm, Sven; Toomela, Aaro; **Kozhenkina, Julia**; Toomsoo, Toomas 14th International Conference on Control, Automation, Robotics & Vision (ICARCV 2016) : Phuket, Thailand, November 13-15, 2016 2016 / [6] p. : ill <https://doi.org/10.1109/ICARCV.2016.7838746>

Recognition and analysis of the contours drawn during the Poppelreuter's test

Nõmm, Sven; Bardoš, Konstantin; Mašarov, Ilja; Kozhenkina, Julia; Toomela, Aaro; Toomsoo, Toomas 2016 15th IEEE International Conference on Machine Learning and Applications : 18-20 December 2016, Anaheim, California : proceedings 2016 / p. 170-175 : ill <http://doi.org/10.1109/ICMLA.2016.0036>

Sentence writing test for Parkinson disease modeling: comparing predictive ability of classifiers

Netšunajev, Aleksei; Nõmm, Sven; Toomela, Aaro; Medijainen, Kadri; Taba, Pille Intelligent Information and Database Systems : 12th Asian Conference, ACIIDS 2020, Phuket, Thailand, March 23-26, 2020 : proceedings, Part I 2020 / p. 345-357 https://doi.org/10.1007/978-3-030-41964-6_30 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Silmatorkamatu DNA jupp võib kujutada võtit ajuhaiguste leevendamiseks

novaator.err.ee 2023 [Silmatorkamatu DNA jupp võib kujutada võtit ajuhaiguste leevendamiseks](#) Небольшой участок ДНК может стать ключом к лечению заболеваний мозга

Sissevaade ravimiärisse. Kümneni lõpus terendab Eestis megatehing

Pilv, Paavo Eesti Päevaleht 2023 / Ärileht, lk. 22-23 : fot https://www.ester.ee/record=b1072079*est

Teadlane otsib ravi manduvale ajule

Jõgi, Aime Tartu Postimees 2020 / Lk. 8-9 : fot <https://dea.digar.ee/article/tartupostimees/2020/12/11/11.1>

Tehisintellekt oskab näha Parkinsoni tõve algust inimese käekirjast

mu.ee 2023 [Tehisintellekt oskab näha Parkinsoni tõve algust inimese käekirjast](#) Tehisaru aitab leida joonistustestidest Parkinsoni tõve varajasi jälgi

Topological fingerprints as an aid in finding structural patterns for LRRK2 inhibition

Kahn, Iiris; Lomaka, Andre; Karelson, Mati Molecular informatics 2014 / p. 269-275 : ill <https://doi.org/10.1002/minf.201300057>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tremor-related feature engineering for machine learning based Parkinson's disease diagnostics

Valla, Elli; Nõmm, Sven; Medijainen, Kadri; Taba, Pille; Toomela, Aaro Biomedical signal processing and control 2022 / art. 103551
<https://doi.org/10.1016/j.bspc.2022.103551> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Usk Parkinsoni tõve ravitavusse tõi preemia : [TTÜ matemaatika-loodusteaduskonna molekulaardiagnostika õppetooli professorile Mart Saarmale]

Mets, Risto Tartu Postimees 2009 / lk. 3

Ustus Aguri nimelise stipendiumi pälvis TalTechi doktorant Elli Valla

postimees.ee 2024 [Ustus Aguri nimelise stipendiumi pälvis TalTechi doktorant Elli Valla](#)

Ülikool asub võitlusse enneaegse vananemisega

Tammepuu, Kadri Postimees 2020 / Lk. 18-19 : ill <https://dea.digar.ee/article/postimees/2020/07/21/16.4>
<https://leht.postimees.ee/7022429/ulikool-asub-voitlusse-enneaegse-vananemisega>

Искусственный интеллект может найти ранние признаки Паркинсона в рисунках

Valla, Elli nauka.err.ee 2024 [Искусственный интеллект может найти ранние признаки Паркинсона в рисунках](#)