

Lenk, K., Satu vuori, E., Lallouette, J., Ladrón-de-Guevara, A., Berry, H., & Hyttinen, J. A. K. (2020). A Computational Model of Interactions Between Neuronal and Astrocytic Networks: The Role of Astrocytes in the Stability of the Neuronal Firing Rate. *Frontiers in Computational Neuroscience*, 13, [92]. <https://doi.org/10.3389/fncom.2019.00092>

Otterpohl, J. R., Emmert-Streib, F., & Pawelzik, K. (2001). A constrained HMM-based approach to the estimation of perceptual switching dynamics in pigeons. *Neurocomputing*, 38-40, 1495-1501. [https://doi.org/10.1016/S0925-2312\(01\)00511-2](https://doi.org/10.1016/S0925-2312(01)00511-2)

Pursiainen, S., Agsten, B., Wagner, S., & Wolters, C. H. (2017). Advanced boundary electrode modeling for tES and parallel tES/EEG. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 26(1), 37-44. <https://doi.org/10.1109/TNSRE.2017.2748930>

Ylä-Outinen, L., Tanskanen, J. M. A., Kapucu, F. E., Hyysalo, A., Hyttinen, J. A. K., & Narkilahti, S. (2019). Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis. teoksessa *In Vitro Neuronal Networks: From Culturing Methods to Neuro-Technological Applications* (Sivut 299-329). (Advances in Neurobiology; Vuosikerta 22). Springer New York LLC. https://doi.org/10.1007/978-3-030-11135-9_13

Hagman, S., Kolasa, M., Basnyat, P., Helminen, M., Kähönen, M., Dastidar, P., ... Elovaara, I. (2015). Analysis of apoptosis-related genes in patients with clinically isolated syndrome and their association with conversion to multiple sclerosis. *JOURNAL OF NEUROIMMUNOLOGY*, 280, 43-48. <https://doi.org/10.1016/j.jneuroim.2015.02.006>

Chen, K., & Zhang, Z. (2018). A Primal Neural Network for Online Equality-Constrained Quadratic Programming. *Cognitive Computation*, 10(2), 381-388. <https://doi.org/10.1007/s12559-017-9510-4>

Miinalainen, T., Rezaei, A., Us, D., Nüßing, A., Engwer, C., Wolters, C. H., & Pursiainen, S. (2019). A realistic, accurate and fast source modeling approach for the EEG forward problem. *NeuroImage*, 184(1), 56-67. <https://doi.org/10.1016/j.neuroimage.2018.08.054>

Pantsar, T., Rissanen, S., Dauch, D., Laitinen, T., Vattulainen, I., & Poso, A. (2018). Assessment of mutation probabilities of KRAS G12 missense mutants and their long-timescale dynamics by atomistic molecular simulations and Markov state modeling. *PLoS Computational Biology*, 14(9), [e1006458]. <https://doi.org/10.1371/journal.pcbi.1006458>

Ormiskangas, J., Valtonen, O., Kivekäs, I., Dean, M., Poe, D., Järnstedt, J., ... Rautiainen, M. (2020). Assessment of PIV performance in validating CFD models from nasal cavity CBCT scans. *Respiratory Physiology and Neurobiology*, 282, [103508]. <https://doi.org/10.1016/j.resp.2020.103508>

Tenhunen, M., Hasan, J., & Himanen, S. L. (2015). Assessment of respiratory effort during sleep with noninvasive techniques. *Sleep Medicine Reviews*, 24, 103-104. <https://doi.org/10.1016/j.smrv.2015.08.010>

Basnyat, P., Hagman, S., Kolasa, M., Koivisto, K., Verkkoniemi-Ahola, A., Airas, L., & Elovaara, I. (2015). Association between soluble L-selectin and anti-JCV antibodies in natalizumab-treated relapsing-remitting MS patients. *Multiple Sclerosis and Related Disorders*, 4(4), 334-338. <https://doi.org/10.1016/j.msard.2015.06.008>

Klapper, S. D., Garg, P., Dagar, S., Lenk, K., Gottmann, K., & Nieweg, K. (2019). Astrocyte lineage cells are essential for functional neuronal differentiation and synapse maturation in human iPSC-derived neural networks. *Glia*, 67(10), 1893-1909. <https://doi.org/10.1002/glia.23666>

Vuorio, J., Vattulainen, I., & Martinez-Seara, H. (2017). Atomistic fingerprint of hyaluronan-CD44 binding. *PLoS Computational Biology*, 13(7), [e1005663]. <https://doi.org/10.1371/journal.pcbi.1005663>

Nevalainen, O., Auvinen, A., Ansakorpi, H., Raitanen, J., & Isojärvi, J. (2014). Autoimmunity-related immunological serum markers and survival in a tertiary care cohort of adult patients with epilepsy. *EPILEPSY RESEARCH*, 108(9), 1675-1679. <https://doi.org/10.1016/j.eplepsyres.2014.08.014>

Hyppönen, J., Hakala, A., Annala, K., Zhang, H., Peltola, J., Mervaala, E., & Kälviäinen, R. (2020). Automatic assessment of the myoclonus severity from videos recorded according to standardized Unified Myoclonus Rating Scale protocol and using human pose and body movement analysis. *Seizure*, *76*, 72-78. <https://doi.org/10.1016/j.seizure.2020.01.014>

Tanskanen, J. M. A., Kapucu, F. E., Vätkki, I., & Hyttinen, J. A. K. (2016). Automatic objective thresholding to detect neuronal action potentials. teoksessa *Proceedings of 2016 24th European Signal Processing Conference (EUSIPCO)* (Sivut 662-666) <https://doi.org/10.1109/EUSIPCO.2016.7760331>

Spruijt-Metz, D., Hekler, E., Saranummi, N., Intille, S., Korhonen, I., Nilsen, W., ... Pavel, M. (2015). Building new computational models to support health behavior change and maintenance: new opportunities in behavioral research. *Translational Behavioral Medicine*, *5*(3), 335-346. <https://doi.org/10.1007/s13142-015-0324-1>

Mokkila, S., Postila, P. A., Rissanen, S., Juhola, H., Vattulainen, I., & Róg, T. (2017). Calcium Assists Dopamine Release by Preventing Aggregation on the Inner Leaflet of Presynaptic Vesicles. *ACS Chemical Neuroscience*, *8*(6), 1242-1250. <https://doi.org/10.1021/acscchemneuro.6b00395>

Kreutzer, J., Ylä-Outinen, L., Mäki, A., Ristola, M., Narkilahti, S., & Kallio, P. (2017). Cell culture chamber with gas supply for prolonged recording of human neuronal cells on microelectrode array. *Journal of Neuroscience Methods*, *280*, 27-35. <https://doi.org/10.1016/j.jneumeth.2017.01.019>

Waris, M. A., Iosifidis, A., & Gabbouj, M. (2017). CNN-based edge filtering for object proposals. *Neurocomputing*, *266*, 631-640. <https://doi.org/10.1016/j.neucom.2017.05.071>

Gavas, R. D., Tripathy, S. R., Chatterjee, D., & Sinha, A. (2018). Cognitive load and metacognitive confidence extraction from pupillary response. *Cognitive Systems Research*, *52*, 325-334. <https://doi.org/10.1016/j.cogsys.2018.07.021>

Špakov, O. (2012). Comparison of eye movement filters used in HCI. teoksessa *Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium* (Sivut 281-284) <https://doi.org/10.1145/2168556.2168616>

Tohka, J., Moradi, E., Huttunen, H., Alzheimer's Disease Neuroimaging Initiative, & Alzheimer's Disease Neuroimaging Initiative 2 (2016). Comparison of Feature Selection Techniques in Machine Learning for Anatomical Brain MRI in Dementia. *Neuroinformatics*, *14*(3), 279-296. <https://doi.org/10.1007/s12021-015-9292-3>

Acar, G. O., Kivekäs, I., Hanna, B. M., Huang, L., Gopen, Q., & Poe, D. S. (2014). Comparison of stapedotomy minus prosthesis, circumferential stapes mobilization, and small fenestra stapedotomy for stapes fixation. *OTOLOGY AND NEUROTOLOGY*, *35*(4). <https://doi.org/10.1097/MAO.0000000000000280>

Acimovic, J., Mäki-Marttunen, T., & Linne, M-L. (2010). Computational modeling of growth in cortical cultures using the NETMORPH simulation tool. teoksessa *Neuroscience 2010, 40th Annual Meeting, San Diego, USA, 13-17 November 2010* (Sivut 2 p)

Acimovic, J., Mäki-Marttunen, T., & Linne, M-L. (2011). Computational study of structural changes in neuronal networks during growth: a model of dissociated neocortical cultures. teoksessa J-M. Fellous, & A. Prinz (Toimittajat), *Twentieth Annual Computational Neuroscience Meeting: CNS*2011* (Vuosikerta 12 (Suppl 1), Sivut P203). [P203] (Annual Computational Neuroscience Meeting CNS; Vuosikerta 12). Stockholm: BioMed Central. <https://doi.org/10.1186/1471-2202-12-S1-P203>

Acimovic, J., Teppola, H., Selinummi, J. J., & Linne, M-L. (2009). Computational tools for assessing the properties of 2D neural cell cultures. teoksessa D. Johnson (Toimittaja), *Eighteenth Annual Computational Neuroscience Meeting: CNS*2009* (Vuosikerta 10 (Suppl 1), Sivut P170). [P170] Berlin: BioMed Central.

Enkavi, G., Mikkolainen, H., Güngör, B., Ikonen, E., & Vattulainen, I. (2017). Concerted regulation of npc2 binding to endosomal/lysosomal membranes by bis(monoacylglycerol)phosphate and sphingomyelin. *PLoS Computational Biology*, *13*(10), [e1005831]. <https://doi.org/10.1371/journal.pcbi.1005831>

Pelkonen, A., & Yavich, L. (2012). Cortical spreading depression in alpha-synuclein knockout mice. *SYNAPSE*, *66*(1), 81-84. <https://doi.org/10.1002/syn.20980>

Malmivaara, K., Ohman, J., Kivisaari, R., Hernesniemi, J., & Siironen, J. (2011). Cost-effectiveness of decompressive craniectomy in non-traumatic neurological emergencies. *European Journal of Neurology*, *18*(3), 402-409. <https://doi.org/10.1111/j.1468-1331.2010.03162.x>

Sharma, V., Dixit, D., Ghosh, S., & Sen, E. (2011). COX-2 regulates the proliferation of glioma stem like cells. *NEUROCHEMISTRY INTERNATIONAL*, *59*(5), 567-571. <https://doi.org/10.1016/j.neuint.2011.06.018>

Acimovic, J., Teppola, H., Mäki-Marttunen, T. M., & Linne, M-L. (2018). *Data-driven study of synchronous population activity in generic spiking neuronal networks: How much do we capture using the minimal model for the considered phenomena?*. Julkaisun esittämisaika: Brain and Mind Symposium 2018, Helsinki, Suomi.

Acimovic, J., Teppola, H., Mäki-Marttunen, T. M., & Linne, M-L. (2018). Data-driven study of synchronous population activity in generic spiking neuronal networks: How much do we capture using the minimal model for the considered phenomena? *BMC Neuroscience*, *19*(Suppl 2), 68-69.

Tavakoli, H. R., Borji, A., Kannala, J., & Rahtu, E. (2020). Deep audio-visual saliency: Baseline model and data. teoksessa S. N. Spencer (Toimittaja), *Proceedings ETRA 2020 Short Papers - ACM Symposium on Eye Tracking Research and Applications, ETRA 2020* [3] ACM. <https://doi.org/10.1145/3379156.3391337>

Möttönen, T., Katisko, J., Haapasalo, J., Tähtinen, T., Kiekara, T., Kähärä, V., ... Lehtimäki, K. (2015). Defining the anterior nucleus of the thalamus (ANT) as a deep brain stimulation target in refractory epilepsy: Delineation using 3 T MRI and intraoperative microelectrode recording. *NeuroImage: Clinical*, *7*, 823-829. <https://doi.org/10.1016/j.nicl.2015.03.001>

Kolasa, M., Hakulinen, U., Brander, A., Hagman, S., Dastidar, P., Elovaara, I., & Sumelahti, M-L. (2019). Diffusion tensor imaging and disability progression in multiple sclerosis: A 4-year follow-up study. *Brain and Behavior*, *9*(1), [e01194]. <https://doi.org/10.1002/brb3.1194>

Salminen, A. V., Manconi, M., Rimpilä, V., Luoto, T. M., Koskinen, E., Ferri, R., ... Polo, O. (2013). Disconnection between periodic leg movements and cortical arousals in spinal cord injury. *JOURNAL OF CLINICAL SLEEP MEDICINE*, *9*(11), 1207-1209. <https://doi.org/10.5664/jcsm.3174>

Hagman, S., Raunio, M., Rossi, M., Dastidar, P., & Elovaara, I. (2011). Disease-associated inflammatory biomarker profiles in blood in different subtypes of multiple sclerosis: Prospective clinical and MRI follow-up study. *JOURNAL OF NEUROIMMUNOLOGY*, *234*(1-2), 141-147. <https://doi.org/10.1016/j.jneuroim.2011.02.009>

Iosifidis, A., Tefas, A., & Pitas, I. (2015). Distance-based human action recognition using optimized class representations. *Neurocomputing*, *161*, 47-55. <https://doi.org/10.1016/j.neucom.2014.10.088>

Iosifidis, A., Tefas, A., & Pitas, I. (2015). DropELM: Fast neural network regularization with Dropout and DropConnect. *Neurocomputing*, *162*, 57-66. <https://doi.org/10.1016/j.neucom.2015.04.006>

Berry, J., Frederiksen, R., Yao, Y., Nymark, S., Chen, J., & Cornwall, C. (2016). Effect of rhodopsin phosphorylation on dark adaptation in mouse rods. *Journal of Neuroscience*, *36*(26), 6973-6987. <https://doi.org/10.1523/JNEUROSCI.3544-15.2016>

Juuti-Uusitalo, K., Nieminen, M., Treumer, F., Ampuja, M., Kallioniemi, A., Klettner, A., & Skottman, H. (2015). Effects of cytokine activation and oxidative stress on the function of the human embryonic stem cell-derived retinal pigment epithelial cells. *Investigative Ophthalmology and Visual Science*, *56*(11), 6265-6274. <https://doi.org/10.1167/iovs.15-17333>

- Pelkonen, A., Kallunki, P., & Yavich, L. (2013). Effects of exogenous alpha-synuclein on stimulated dopamine overflow in dorsal striatum. *Neuroscience Letters*, *554*, 141-145. <https://doi.org/10.1016/j.neulet.2013.08.072>
- Mäki-Marttunen, T. M., Acimovic, J., Ruohonen, K. P., & Linne, M-L. (2011). Effects of local structure of neuronal networks on spiking activity in silico. teoksessa J-M. Fellous, & A. Prinz (Toimittajat), *Twentieth Annual Computational Neuroscience Meeting: CNS*2011* (Vuosikerta 12 (Suppl 1), Sivut P202). Stockholm: BioMed Central.
- Mäki-Marttunen, T., Acimovic, J., Ruohonen, K., & Linne, M-L. (2011). Effects of structure on spontaneous activity in simulated neuronal networks. teoksessa *Proceedings of Mathematical Neuroscience (ICMS 2011), April 11-13, 2011, Edinburgh, Scotland*
- Basnyat, P., Natarajan, R., Vistbakka, J., Lehtikangas, M., Airas, L., Matinlauri, I., ... Hagman, S. (2015). Elevated levels of soluble CD26 and CD30 in multiple sclerosis. *Clinical and Experimental Neuroimmunology*, *6*(4), 419-425. <https://doi.org/10.1111/cen3.12253>
- Acimovic, J. (2011). Emergence of global and local structural features during development of neuronal networks. teoksessa *Proceedings of the Eighth International Workshop on Computational Systems Biology, WCSB 2011, June 6-8, 2011, Zürich, Switzerland* (TICSP Series ; Vuosikerta 57). Tampere: TICSP.
- Sonkajärvi, E., Rytty, S., Alahuhta, S., Suominen, K., Kumpulainen, T., Ohtonen, P., ... Jäntti, V. (2018). Epileptiform and periodic EEG activities induced by rapid sevoflurane anaesthesia induction. *Clinical Neurophysiology*, *129*(3), 638-645. <https://doi.org/10.1016/j.clinph.2017.12.037>
- Otterpohl, J. R., Haynes, J. D., Emmert-Streib, F., Vetter, G., & Pawelzik, K. (2001). Erratum: Extracting the dynamics of perceptual switching from 'noisy' behaviour: An application of hidden Markov modelling to pecking data from pigeons (Journal of Physiology Paris (2000) 94:5-6 (555-567) PII: S0928425700010950). *Journal of Physiology: Paris*, *95*(1-6), 497. [https://doi.org/10.1016/S0928-4257\(01\)00091-2](https://doi.org/10.1016/S0928-4257(01)00091-2)
- Kivekäs, I., Pöyhönen, L., Aarnisalo, A., Rautiainen, M., & Poe, D. (2015). Eustachian tube mucosal inflammation scale validation based on digital video images. *OTOLOGY AND NEUROTOLOGY*, *36*(10), 1748-1752. <https://doi.org/10.1097/MAO.0000000000000895>
- Tenhunen, M., Huupponen, E., Hasan, J., Heino, O., & Himanen, S. L. (2015). Evaluation of the different sleep-disordered breathing patterns of the compressed tracheal sound. *Clinical Neurophysiology*, *126*(8), 1557-1563. <https://doi.org/10.1016/j.clinph.2014.11.003>
- Franco, P., & Värrä, A. (2015). Experiments of the sonification of the sleep electroencephalogram. *Finnish Journal of eHealth and eWelfare*, *7*(2-3), 65-74.
- Melkas, S., Sibolt, G., Oksala, N. K. J., Putaala, J., Pohjasvaara, T., Kaste, M., ... Erkinjuntti, T. (2012). Extensive white matter changes predict stroke recurrence up to 5 years after a first-ever ischemic stroke. *CEREBROVASCULAR DISEASES*, *34*(3), 191-198. <https://doi.org/10.1159/000341404>
- Otterpohl, J. R., Haynes, J. D., Emmert-Streib, F., Vetter, G., & Pawelzik, K. (2000). Extracting the dynamics of perceptual switching from 'noisy' behaviour: An application of hidden Markov modelling to pecking data from pigeons. *Journal of Physiology: Paris*, *94*(5-6), 555-567. [https://doi.org/10.1016/S0928-4257\(00\)01095-0](https://doi.org/10.1016/S0928-4257(00)01095-0)
- Iosifidis, A. (2015). Extreme learning machine based supervised subspace learning. *Neurocomputing*, *167*, 158-164. <https://doi.org/10.1016/j.neucom.2015.04.083>
- Pajarinen, J., Peltonen, J., & Uusitalo, M. A. (2011). Fault tolerant machine learning for nanoscale cognitive radio. *Neurocomputing*, *74*(5), 753-764. <https://doi.org/10.1016/j.neucom.2010.10.007>

Mäkinen, M., Joki, T., Ylä-Outinen, L., Skottman, H., Narkilahti, S., & Äänismaa, R. (2013). Fluorescent probes as a tool for cell population tracking in spontaneously active neural networks derived from human pluripotent stem cells. *Journal of Neuroscience Methods*, *215*(1), 88-96. <https://doi.org/10.1016/j.jneumeth.2013.02.019>

Oschmann, F., Berry, H., Obermayer, K., & Lenk, K. (2018). From in silico astrocyte cell models to neuron-astrocyte network models: A review. *BRAIN RESEARCH BULLETIN*, *136*, 76-84. <https://doi.org/10.1016/j.brainresbull.2017.01.027>

Kauppi, J-P., Pajula, J., Niemi, J., Hari, R., & Tohka, J. (2017). Functional brain segmentation using inter-subject correlation in fMRI. *Human Brain Mapping*, *38*(5), 2643-2665. <https://doi.org/10.1002/hbm.23549>

Hyrskykari, A., Istance, H., & Vickers, S. (2012). Gaze gestures or dwell-based interaction? teoksessa *Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium* (Sivut 229-232) <https://doi.org/10.1145/2168556.2168602>

Kangas, J., Rantala, J., Majaranta, P., Isokoski, P., & Raisamo, R. (2014). Haptic feedback to gaze events. teoksessa *Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014* (Sivut 11-18). Association for Computing Machinery. <https://doi.org/10.1145/2578153.2578154>

Pajula, J., & Tohka, J. (2016). How Many Is Enough? Effect of Sample Size in Inter-Subject Correlation Analysis of fMRI. *Computational Intelligence and Neuroscience*, *2016*, [2094601]. <https://doi.org/10.1155/2016/2094601>

Sun, L., Peräkylä, J., Polvivaara, M., Öhman, J., Peltola, J., Lehtimäki, K., ... Hartikainen, K. M. (2015). Human anterior thalamic nuclei are involved in emotion-attention interaction. *NEUROPSYCHOLOGIA*, *78*, 88-94. <https://doi.org/10.1016/j.neuropsychologia.2015.10.001>

Angleraud, A., Houbre, Q., Kyrki, V., & Pieters, R. (2018). Human-robot interactive learning architecture using ontologies and symbol manipulation. teoksessa *RO-MAN 2018 - 27th IEEE International Symposium on Robot and Human Interactive Communication: August 27-31, 2018, Nanjing, China*. (Sivut 384-389). (IEEE RO-MAN). IEEE. <https://doi.org/10.1109/ROMAN.2018.8525580>

Hartikainen, K. M., Sun, L., Polvivaara, M., Brause, M., Lehtimäki, K., Haapasalo, J., ... Peltola, J. (2014). Immediate effects of deep brain stimulation of anterior thalamic nuclei on executive functions and emotion-attention interaction in humans. *JOURNAL OF CLINICAL AND EXPERIMENTAL NEUROPSYCHOLOGY*, *36*(5), 540-550. <https://doi.org/10.1080/13803395.2014.913554>

Rimpiläinen, V., Koulouri, A., Lucka, F., Kaipio, J. P., & Wolters, C. H. (2019). Improved EEG source localization with Bayesian uncertainty modelling of unknown skull conductivity. *NeuroImage*, *188*, 252-260. <https://doi.org/10.1016/j.neuroimage.2018.11.058>

Lehtimäki, M., Paunonen, L., & Linne, M-L. (2018). Improvement of computational efficiency of a biochemical plasticity model. *BMC Neuroscience*, *19*(Suppl 2), 66-66. [P130]. <https://doi.org/10.1186/s12868-018-0452-x#Sec613>

Tran, D. T., Iosifidis, A., & Gabbouj, M. (2018). Improving efficiency in convolutional neural networks with multilinear filters. *Neural Networks*, *105*, 328-339. <https://doi.org/10.1016/j.neunet.2018.05.017>

Emmert-Streib, F. (2013). Influence of the experimental design of gene expression studies on the inference of gene regulatory networks: Environmental factors. *PeerJ*, *2013*(1), [e10]. <https://doi.org/10.7717/peerj.10>

Emmert-Streib, F. (2006). Influence of the neural network topology on the learning dynamics. *Neurocomputing*, *69*(10-12), 1179-1182. <https://doi.org/10.1016/j.neucom.2005.12.070>

- Sciaccia, M. F. M., Romanucci, V., Zarrelli, A., Monaco, I., Lolicato, F., Spinella, N., ... Milardi, D. (2017). Inhibition of A β Amyloid Growth and Toxicity by Silybins: The Crucial Role of Stereochemistry. *ACS Chemical Neuroscience*, 8(8), 1767-1778. <https://doi.org/10.1021/acschemneuro.7b00110>
- Dixit, D., Sharma, V., Ghosh, S., Mehta, V. S., & Sen, E. (2012). Inhibition of Casein kinase-2 induces p53-dependent cell cycle arrest and sensitizes glioblastoma cells to tumor necrosis factor (TNF α)-induced apoptosis through SIRT1 inhibition. *CELL DEATH AND DISEASE*, 3(2), [e271]. <https://doi.org/10.1038/cddis.2012.10>
- Mäki-Marttunen, T. M., Acimovic, J., Ruohonen, K. P., & Linne, M-L. (2012). In silico study on structure and dynamics in bursting neuronal networks. teoksessa *Neuroscience 2012; 42nd Annual Meeting, New Orleans, USA, October 14-18, 2012* [300.26/DDD70] Society for Neuroscience (SfN).
- Iosifidis, A., Tefas, A., & Pitas, I. (2013). Learning sparse representations for view-independent human action recognition based on fuzzy distances. *Neurocomputing*, 121, 344-353. <https://doi.org/10.1016/j.neucom.2013.05.021>
- Špakov, O., Isokoski, P., & Majaranta, P. (2014). Look and lean: Accurate head-assisted eye pointing. teoksessa *Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014* (Sivut 35-42). Association for Computing Machinery. <https://doi.org/10.1145/2578153.2578157>
- Satuvuori, E., Mulansky, M., Bozanic, N., Malvestio, I., Zeldenrust, F., Lenk, K., & Kreuz, T. (2017). Measures of spike train synchrony for data with multiple time scales. *Journal of Neuroscience Methods*, 287, 25-38. <https://doi.org/10.1016/j.jneumeth.2017.05.028>
- Natarajan, R., Einarsdottir, E., Riutta, A., Hagman, S., Raunio, M., Mononen, N., ... Elovaara, I. (2012). Melatonin pathway genes are associated with progressive subtypes and disability status in multiple sclerosis among Finnish patients. *JOURNAL OF NEUROIMMUNOLOGY*, 250(1-2), 106-110. <https://doi.org/10.1016/j.jneuroim.2012.05.014>
- Lolicato, F., Juhola, H., Zak, A., Postila, P. A., Saukko, A., Rissanen, S., ... Róg, T. (2020). Membrane-Dependent Binding and Entry Mechanism of Dopamine into Its Receptor. *ACS Chemical Neuroscience*, 11(13), 1914–1924. <https://doi.org/10.1021/acschemneuro.9b00656>
- Heikkinen, H., Vinberg, F., Nymark, S., & Koskelainen, A. (2011). Mesopic background lights enhance dark-adapted cone ERG flash responses in the intact mouse retina: A possible role for gap junctional decoupling. *Journal of Neurophysiology*, 105(5), 2309-2318. <https://doi.org/10.1152/jn.00536.2010>
- Iantovics, L. B., Emmert-Streib, F., & Arik, S. (2017). MetrIntMeas a novel metric for measuring the intelligence of a swarm of cooperating agents. *Cognitive Systems Research*, 45, 17-29. <https://doi.org/10.1016/j.cogsys.2017.04.006>
- Kaipio, M. L., Cheour, M., Öhman, J., Salonen, O., & Näätänen, R. (2013). Mismatch negativity abnormality in traumatic brain injury without macroscopic lesions on conventional MRI. *NeuroReport*, 24(8), 440-444. <https://doi.org/10.1097/WNR.0b013e32836164b4>
- Teppola, H., Sarkanen, J. R., Jalonen, T. O., & Linne, M-L. (2016). Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol. *Neurochemical Research*, 41(4), 731-747. <https://doi.org/10.1007/s11064-015-1743-6>
- Nevalainen, O., Auvinen, A., Ansakorpi, H., Artama, M., Raitanen, J., & Isojärvi, J. (2012). Mortality by clinical characteristics in a tertiary care cohort of adult patients with chronic epilepsy. *EPILEPSIA*, 53(12). <https://doi.org/10.1111/epi.12006>
- Juhola, H., Postila, P. A., Rissanen, S., Lolicato, F., Vattulainen, I., & Róg, T. (2018). Negatively Charged Gangliosides Promote Membrane Association of Amphipathic Neurotransmitters. *Neuroscience*, 384, 214-223. <https://doi.org/10.1016/j.neuroscience.2018.05.035>

Välkki, I. A., Lenk, K., Mikkonen, J. E., Kapucu, F. E., & Hyttinen, J. A. K. (2017). Network-wide adaptive burst detection depicts neuronal activity with improved accuracy. *Frontiers in Computational Neuroscience*, *11*, [40]. <https://doi.org/10.3389/fncom.2017.00040>

Acimovic, J. (2009). *Neural networks, cell cultures and some older work on data analysis..* Julkaisun esittämispaikka: Okinawa Computational Neuroscience Course 2009, Japani.

Wortha, S. M., Bloechle, J., Ninaus, M., Kiili, K., Lindstedt, A., Bahnmueller, J., ... Klein, E. (2020). Neurofunctional plasticity in fraction learning: An fMRI training study. *Trends in Neuroscience and Education*, *21*, [100141]. <https://doi.org/10.1016/j.tine.2020.100141>

Pelkonen, A., & Yavich, L. (2011). Neuromuscular pathology in mice lacking alpha-synuclein. *Neuroscience Letters*, *487* (3), 350-353. <https://doi.org/10.1016/j.neulet.2010.10.054>

Sharma, V., Bala, A., Deshmukh, R., Bedi, K. L., & Sharma, P. L. (2012). Neuroprotective effect of RO-20-1724-a phosphodiesterase4 inhibitor against intracerebroventricular streptozotocin induced cognitive deficit and oxidative stress in rats. *PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR*, *101*(2), 239-245. <https://doi.org/10.1016/j.pbb.2012.01.004>

Xiao, L., Liao, B., Li, S., & Chen, K. (2018). Nonlinear recurrent neural networks for finite-time solution of general time-varying linear matrix equations. *Neural Networks*, *98*, 102-113. <https://doi.org/10.1016/j.neunet.2017.11.011>

Iosifidis, A., Mygdalis, V., Tefas, A., & Pitas, I. (2016). One-Class Classification based on Extreme Learning and Geometric Class Information. *Neural Processing Letters*, 1-16. <https://doi.org/10.1007/s11063-016-9541-y>

Mäki-Marttunen, T. M., Acimovic, J., Ruohonen, K. P., & Linne, M-L. (2013). On the effect of network structure and synaptic mechanisms on sustained bursting activity. teoksessa G. Cymbalyuk, & A. Prinz (Toimittajat), *Twenty Second Annual Computational Neuroscience Meeting: CNS*2013* (Vuosikerta Volume 14 Suppl 1, Sivut P247). Paris, France: BioMed Central.

Ju, Y. S. E., Alexandrov, L. B., Gerstung, M., Martincorena, I., Nik-Zainal, S., Ramakrishna, M., ... Campbell, P. J. (2014). Origins and functional consequences of somatic mitochondrial DNA mutations in human cancer. *eLIFE*, *3*. <https://doi.org/10.7554/eLife.02935>

Rönkkö, T., & Timonen, H. (2019). Overview of Sources and Characteristics of Nanoparticles in Urban Traffic-Influenced Areas. *Journal of Alzheimer's Disease*, *72*(1), 15-28. <https://doi.org/10.3233/JAD-190170>

Emmert-Streib, F., & Glazko, G. V. (2011). Pathway analysis of expression data: Deciphering functional building blocks of complex diseases. *PLoS Computational Biology*, *7*(5), [e1002053]. <https://doi.org/10.1371/journal.pcbi.1002053>

Polinati, P. P., Ilmarinen, T., Trokovic, R., Hyotylainen, T., Otonkoski, T., Suomalainen, A., ... Tyniitiina, T. (2015). Patient-specific induced pluripotent stem cell—derived RPE cells: Understanding the pathogenesis of retinopathy in long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency. *Investigative Ophthalmology and Visual Science*, *56*(5), 3371-3382. <https://doi.org/10.1167/iovs.14-14007>

Saurus, P., Kuusela, S., Lehtonen, E., Hyvönen, M. E., Ristola, M., Fogarty, C. L., ... Lehtonen, S. (2015). Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway. *CELL DEATH AND DISEASE*, *6*(5), [e1752]. <https://doi.org/10.1038/cddis.2015.125>

Sibolt, G., Curtze, S., Melkas, S., Pohjasvaara, T., Kaste, M., Karhunen, P. J., ... Erkinjuntti, T. (2013). Post-stroke depression and depression-executive dysfunction syndrome are associated with recurrence of ischaemic stroke. *CEREBROVASCULAR DISEASES*, *36*(5-6), 336-343. <https://doi.org/10.1159/000355145>

- Moradi, E., Khundrakpam, B., Lewis, J. D., Evans, A. C., & Tohka, J. (2017). Predicting symptom severity in autism spectrum disorder based on cortical thickness measures in agglomerative data. *NeuroImage*, *144*(A), 128–141. <https://doi.org/10.1016/j.neuroimage.2016.09.049>
- Rezaei, A., Koulouri, A., & Pursiainen, S. (2020). Randomized Multiresolution Scanning in Focal and Fast E/MEG Sensing of Brain Activity with a Variable Depth. *Brain Topography*, *33*(2), 161-175. <https://doi.org/10.1007/s10548-020-00755-8>
- Špakov, O., & Gizatdinova, Y. (2014). Real-time hidden gaze point correction. teoksessa *Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014* (Sivut 291-294). Association for Computing Machinery. <https://doi.org/10.1145/2578153.2578200>
- Javanainen, M., Enkavi, G., Guixà-González, R., Kulig, W., Martinez-Seara, H., Levental, I., & Vattulainen, I. (2019). Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions. *PLoS Computational Biology*, *15*(5), [e1007033]. <https://doi.org/10.1371/journal.pcbi.1007033>
- Iosifidis, A., Tefas, A., & Pitas, I. (2014). Regularized extreme learning machine for multi-view semi-supervised action recognition. *Neurocomputing*, *145*, 250-262. <https://doi.org/10.1016/j.neucom.2014.05.036>
- Puhakka, I. J. A., & Peltola, M. J. (2020). Salivary cortisol reactivity to psychological stressors in infancy: A meta-analysis. *PSYCHONEUROENDOCRINOLOGY*, *115*, [104603]. <https://doi.org/10.1016/j.psyneuen.2020.104603>
- Sibolt, G., Curtze, S., Melkas, S., Pohjasvaara, T., Kaste, M., Karhunen, P. J., ... Erkinjuntti, T. (2015). Severe cerebral white matter lesions in ischemic stroke patients are associated with less time spent at home and early institutionalization. *INTERNATIONAL JOURNAL OF STROKE*, *10*(8), 1192-1196. <https://doi.org/10.1111/ijis.12578>
- Mäki-Marttunen, T. M., Acimovic, J., Ruohonen, K. P., & Linne, M-L. (2012). Significance of graph theoretic measures in predicting neuronal network activity. teoksessa *Proceedings of The 9th annual Computational and Systems Neuroscience meeting (COSYNE 2012)* (Sivut 55-55). [1-15] Salt Lake City.
- Heikkilä, H., & Rähkä, K. J. (2012). Simple gaze gestures and the closure of the eyes as an interaction technique. teoksessa *Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium* (Sivut 147-154) <https://doi.org/10.1145/2168556.2168579>
- Ilvesmäki, T., Koskinen, E., Brander, A., Luoto, T., Öhman, J., & Eskola, H. (2017). Spinal cord injury induces widespread chronic changes in cerebral white matter. *Human Brain Mapping*, *38*(7), 3637-3647. <https://doi.org/10.1002/hbm.23619>
- Bron, E. E., Smits, M., van der Flier, W. M., Vrenken, H., Barkhof, F., Scheltens, P., ... Klein, S. (2015). Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge. *NeuroImage*, *111*, 562-579. <https://doi.org/10.1016/j.neuroimage.2015.01.048>
- Angleraud, A., Houbre, Q., & Pieters, R. (2019). Teaching semantics and skills for human-robot collaboration. *Paladyn*, *10* (1), 318-329. <https://doi.org/10.1515/pjbr-2019-0025>
- Sharmin, S., Špakov, O., & Rähkä, K. J. (2012). The effect of different text presentation formats on eye movement metrics in reading. *JOURNAL OF EYE MOVEMENT RESEARCH*, *5*(3), [3].
- Acimovic, J., Mäki-Marttunen, T., & Linne, M-L. (2015). The effects of neuron morphology on graph theoretic measures of network connectivity: The analysis of a two-level statistical model. *Frontiers in Neuroanatomy*, *9*(June), [76]. <https://doi.org/10.3389/fnana.2015.00076>
- Saarela, C., Karrasch, M., Ilvesmäki, T., Parkkola, R., Rinne, J. O., & Laine, M. (2016). The relationship between recognition memory for emotion-laden words and white matter microstructure in normal older individuals. *NeuroReport*, *27* (18), 1345-1349. <https://doi.org/10.1097/WNR.0000000000000704>

- Istance, H., Vickers, S., & Hyrskykari, A. (2012). The validity of using non-representative users in gaze communication research. teoksessa *Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium* (Sivut 233-236) <https://doi.org/10.1145/2168556.2168603>
- Gracia-Tabuenca, J., Seppä, V.-P., Jauhiainen, M., Paassilta, M., Viik, J., & Karjalainen, J. (2020). Tidal breathing flow profiles during sleep in wheezing children measured by impedance pneumography. *Respiratory Physiology and Neurobiology*, 271, [103312]. <https://doi.org/10.1016/j.resp.2019.103312>
- Faisal, A., Gillberg, J., Leen, G., & Peltonen, J. (2013). Transfer learning using a nonparametric sparse topic model. *Neurocomputing*, 112, 124-137. <https://doi.org/10.1016/j.neucom.2012.12.038>
- Akkil, D., Isokoski, P., Kangas, J., Rantala, J., & Raisamo, R. (2014). TraQuMe: A tool for measuring the gaze tracking quality. teoksessa *Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014* (Sivut 327-330). Association for Computing Machinery. <https://doi.org/10.1145/2578153.2578192>
- Teppola, H., Aćimović, J., & Linne, M. L. (2019). Unique Features of Network Bursts Emerge From the Complex Interplay of Excitatory and Inhibitory Receptors in Rat Neocortical Networks. *FRONTIERS IN CELLULAR NEUROSCIENCE*, 13, [377]. <https://doi.org/10.3389/fncel.2019.00377>
- Alarautalahti, V., Ragauskas, S., Hakkarainen, J. J., Uusitalo-Järvinen, H., Uusitalo, H., Hyttinen, J., ... Nymark, S. (2019). Viability of Mouse Retinal Explant Cultures Assessed by Preservation of Functionality and Morphology. *Investigative ophthalmology & visual science*, 60(6), 1914-1927. <https://doi.org/10.1167/iovs.18-25156>
- Acimovic, J., Mäki-Marttunen, T. M., & Linne, M-L. (2015). Whole-cell morphological properties of neurons constrain the nonrandom features of network connectivity. teoksessa G. Cymbalyuk, & A. Burkitt (Toimittajat), *24th Annual Computational Neuroscience Meeting: CNS*2015* (Vuosikerta 16 (Suppl 1), Sivut P:07). [O7] Prague: BioMed Central.
- Zou, J., Hannula, M., Lehto, K., Feng, H., Lähelmä, J., Aula, A. S., ... Pyykkö, I. (2015). X-ray microtomographic confirmation of the reliability of CBCT in identifying the scalar location of cochlear implant electrode after round window insertion. *Hearing Research*, 326, 59-65. <https://doi.org/10.1016/j.heares.2015.04.005>
- He, Q., Rezaei, A., & Pursiainen, S. (2019). Zeffiro User Interface for Electromagnetic Brain Imaging: a GPU Accelerated FEM Tool for Forward and Inverse Computations in Matlab. *Neuroinformatics*. <https://doi.org/10.1007/s12021-019-09436-9>