

Lenk K, Satuvuori E, Lallouette J, Ladrón-de-Guevara A, Berry H, Hyttinen JAK. **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.* 2020 Jan 22;13. 92. <https://doi.org/10.3389/fncom.2019.00092>

Otterpohl JR, Emmert-Streib F, Pawelzik K. **A constrained HMM-based approach to the estimation of perceptual switching dynamics in pigeons.** *Neurocomputing.* 2001 Jun;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 CH. **Advanced boundary electrode modeling for tES and parallel tES/EEG.** *IEEE Transactions on Neural Systems and Rehabilitation Engineering.* 2017;26(1):37-44. <https://doi.org/10.1109/TNSRE.2017.2748930>

Ylä-Outinen L, Tanskanen JMA, Kapucu FE, Hyysalo A, Hyttinen JAK, Narkilahti S. **Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis.** In *In Vitro Neuronal Networks: From Culturing Methods to Neuro-Technological Applications.* Springer New York LLC. 2019. p. 299-329. (Advances in Neurobiology). https://doi.org/10.1007/978-3-030-11135-9_13

Hagman S, Kolasa M, Basnyat P, Helminen M, Kähönen M, Dastidar P et al. **Analysis of apoptosis-related genes in patients with clinically isolated syndrome and their association with conversion to multiple sclerosis.** *JOURNAL OF NEUROIMMUNOLOGY.* 2015 Mar 15;280:43-48. <https://doi.org/10.1016/j.jneuroim.2015.02.006>

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

Miinalainen T, Rezaei A, Us D, Nüßing A, Engwer C, Wolters CH et al. **A realistic, accurate and fast source modeling approach for the EEG forward problem.** *NeuroImage.* 2019;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. **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.* 2018 Sep 10;14(9). e1006458. <https://doi.org/10.1371/journal.pcbi.1006458>

Ormskangas J, Valtonen O, Kivekäs I, Dean M, Poe D, Järnstedt J et al. **Assessment of PIV performance in validating CFD models from nasal cavity CBCT scans.** *Respiratory Physiology and Neurobiology.* 2020 Nov 1;282. 103508. <https://doi.org/10.1016/j.resp.2020.103508>

Tenhunen M, Hasan J, Himanen SL. **Assessment of respiratory effort during sleep with noninvasive techniques.** *Sleep Medicine Reviews.* 2015 Dec 1;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 et al. **Association between soluble L-selectin and anti-JCV antibodies in natalizumab-treated relapsing-remitting MS patients.** *Multiple Sclerosis and Related Disorders.* 2015 Jul 1;4(4):334-338. <https://doi.org/10.1016/j.msard.2015.06.008>

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

Vuorio J, Vattulainen I, Martinez-Seara H. **Atomistic fingerprint of hyaluronan–CD44 binding.** *PLoS Computational Biology.* 2017 Jul 1;13(7). e1005663. <https://doi.org/10.1371/journal.pcbi.1005663>

Nevalainen O, Auvinen A, Ansakorpi H, Raitanen J, Isojärvi J. **Autoimmunity-related immunological serum markers and survival in a tertiary care cohort of adult patients with epilepsy.** *EPILEPSY RESEARCH.* 2014 Nov 1;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 et al. **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*. 2020 Mar 1;76:72-78. <https://doi.org/10.1016/j.seizure.2020.01.014>

Tanskanen JMA, Kapucu FE, Välikki I, Hyttinen JAK. **Automatic objective thresholding to detect neuronal action potentials.** In *Proceedings of 2016 24th European Signal Processing Conference (EUSIPCO)*. 2016. p. 662-666 <https://doi.org/10.1109/EUSIPCO.2016.7760331>

Spruijt-Metz D, Hekler E, Saranummi N, Intille S, Korhonen I, Nilsen W et al. **Building new computational models to support health behavior change and maintenance: new opportunities in behavioral research.** *Translational Behavioral Medicine*. 2015 Sep 17;5(3):335-346. <https://doi.org/10.1007/s13142-015-0324-1>

Mokkila S, Postila PA, Rissanen S, Juhola H, Vattulainen I, Róg T. **Calcium Assists Dopamine Release by Preventing Aggregation on the Inner Leaflet of Presynaptic Vesicles.** *ACS Chemical Neuroscience*. 2017 Jun 21;8(6):1242-1250. <https://doi.org/10.1021/acscchemneuro.6b00395>

Kreutzer J, Ylä-Outinen L, Mäki A, Ristola M, Narkilahti S, Kallio P. **Cell culture chamber with gas supply for prolonged recording of human neuronal cells on microelectrode array.** *Journal of Neuroscience Methods*. 2017 Mar 15;280:27-35. <https://doi.org/10.1016/j.jneumeth.2017.01.019>

Waris MA, Iosifidis A, Gabbouj M. **CNN-based edge filtering for object proposals.** *Neurocomputing*. 2017 Jun 2;266:631-640. <https://doi.org/10.1016/j.neucom.2017.05.071>

Gavas RD, Tripathy SR, Chatterjee D, Sinha A. **Cognitive load and metacognitive confidence extraction from pupillary response.** *Cognitive Systems Research*. 2018 Dec 1;52:325-334. <https://doi.org/10.1016/j.cogsys.2018.07.021>

Špakov O. **Comparison of eye movement filters used in HCI.** In *Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium*. 2012. p. 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. **Comparison of Feature Selection Techniques in Machine Learning for Anatomical Brain MRI in Dementia.** *Neuroinformatics*. 2016;14(3):279-296. <https://doi.org/10.1007/s12021-015-9292-3>

Acar GO, Kivekäs I, Hanna BM, Huang L, Gopen Q, Poe DS. **Comparison of stapedotomy minus prosthesis, circumferential stapes mobilization, and small fenestra stapedotomy for stapes fixation.** *OTOLOGY AND NEUROTOLOGY*. 2014;35(4). <https://doi.org/10.1097/MAO.0000000000000280>

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

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

Acimovic J, Teppola H, Selinummi JJ, Linne M-L. **Computational tools for assessing the properties of 2D neural cell cultures.** In Johnson D, editor, *Eighteenth Annual Computational Neuroscience Meeting: CNS*2009*. Vol. 10 (Suppl 1). Berlin: BioMed Central. 2009. p. P170. P170

Enkavi G, Mikkolainen H, Güngör B, Ikonen E, Vattulainen I. **Concerted regulation of npc2 binding to endosomal/lysosomal membranes by bis(monoacylglycero)phosphate and sphingomyelin.** *PLoS Computational Biology*. 2017 Oct 1;13(10). e1005831. <https://doi.org/10.1371/journal.pcbi.1005831>

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

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

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

Acimovic J, Teppola H, Mäki-Marttunen TM, Linne M-L. **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?** 2018. Paper presented at Brain and Mind Symposium 2018, Helsinki, Finland.

Acimovic J, Teppola H, Mäki-Marttunen TM, Linne M-L. **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. 2018 Oct 29;19(Suppl 2):68-69.

Tavakoli HR, Borji A, Kannala J, Rahtu E. **Deep audio-visual saliency: Baseline model and data.** In Spencer SN, editor, Proceedings ETRA 2020 Short Papers - ACM Symposium on Eye Tracking Research and Applications, ETRA 2020. ACM. 2020. 3 <https://doi.org/10.1145/3379156.3391337>

Möttönen T, Katisko J, Haapasalo J, Tähtinen T, Kiekara T, Kähärä V et al. **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.** Neurolmage: Clinical. 2015;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 et al. **Diffusion tensor imaging and disability progression in multiple sclerosis: A 4-year follow-up study.** Brain and Behavior. 2019 Jan;9(1). e01194. <https://doi.org/10.1002/brb3.1194>

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

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

Iosifidis A, Tefas A, Pitas I. **Distance-based human action recognition using optimized class representations.** Neurocomputing. 2015 Aug 5;161:47-55. <https://doi.org/10.1016/j.neucom.2014.10.088>

Iosifidis A, Tefas A, Pitas I. **DropELM: Fast neural network regularization with Dropout and DropConnect.** Neurocomputing. 2015 Aug 25;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. **Effect of rhodopsin phosphorylation on dark adaptation in mouse rods.** Journal of Neuroscience. 2016 Jun 29;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 et al. **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. 2015;56(11):6265-6274. <https://doi.org/10.1167/iovs.15-17333>

Pelkonen A, Kallunki P, Yavich L. **Effects of exogenous alpha-synuclein on stimulated dopamine overflow in dorsal striatum.** Neuroscience Letters. 2013 Oct 25;554:141-145. <https://doi.org/10.1016/j.neulet.2013.08.072>

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. **Effects of local structure of neuronal networks on spiking activity in silico.** In Fellous J-M, Prinz A, editors, Twentieth Annual Computational Neuroscience Meeting: CNS*2011. Vol. 12 (Suppl 1). Stockholm: BioMed Central. 2011. p. P202

Mäki-Marttunen T, Acimovic J, Ruohonen K, Linne M-L. **Effects of structure on spontaneous activity in simulated neuronal networks.** In Proceedings of Mathematical Neuroscience (ICMS 2011), April 11-13, 2011, Edinburgh, Scotland. 2011

Basnyat P, Natarajan R, Vistbakka J, Lehtikangas M, Airas L, Matinlauri I et al. **Elevated levels of soluble CD26 and CD30 in multiple sclerosis.** Clinical and Experimental Neuroimmunology. 2015 Nov 1;6(4):419-425.
<https://doi.org/10.1111/cen3.12253>

Acimovic J. **Emergence of global and local structural features during development of neuronal networks.** In Proceedings of the Eighth International Workshop on Computational Systems Biology, WCSB 2011, June 6-8, 2011, Zürich, Switzerland . Tampere: TICSP. 2011. (TICSP Series).

Sonkajärvi E, Rytty S, Alahuhta S, Suominen K, Kumpulainen T, Ohtonen P et al. **Epileptiform and periodic EEG activities induced by rapid sevoflurane anaesthesia induction.** Clinical Neurophysiology. 2018 Mar 1;129(3):638-645.
<https://doi.org/10.1016/j.clinph.2017.12.037>

Otterpohl JR, Haynes JD, Emmert-Streib F, Vetter G, Pawelzik K. **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. 2001;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. **Eustachian tube mucosal inflammation scale validation based on digital video images.** OTOLOGY AND NEUROTOLOGY. 2015 Dec 1;36(10):1748-1752.
<https://doi.org/10.1097/MAO.0000000000000895>

Tenhunen M, Huupponen E, Hasan J, Heino O, Himanen SL. **Evaluation of the different sleep-disordered breathing patterns of the compressed tracheal sound.** Clinical Neurophysiology. 2015 Aug 1;126(8):1557-1563.
<https://doi.org/10.1016/j.clinph.2014.11.003>

Franco P, Värrä A. **Experiments of the sonification of the sleep electroencephalogram.** Finnish Journal of eHealth and eWelfare. 2015 May 11;7(2-3):65-74.

Melkas S, Sibolt G, Oksala NKJ, Putaala J, Pohjasvaara T, Kaste M et al. **Extensive white matter changes predict stroke recurrence up to 5 years after a first-ever ischemic stroke.** CEREBROVASCULAR DISEASES. 2012 Oct;34(3):191-198.
<https://doi.org/10.1159/000341404>

Otterpohl JR, Haynes JD, Emmert-Streib F, Vetter G, Pawelzik K. **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. [https://doi.org/10.1016/S0928-4257\(00\)01095-0](https://doi.org/10.1016/S0928-4257(00)01095-0)

Iosifidis A. **Extreme learning machine based supervised subspace learning.** Neurocomputing. 2015;167:158-164.
<https://doi.org/10.1016/j.neucom.2015.04.083>

Pajarinen J, Peltonen J, Uusitalo MA. **Fault tolerant machine learning for nanoscale cognitive radio.** Neurocomputing. 2011 Feb;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. **Fluorescent probes as a tool for cell population tracking in spontaneously active neural networks derived from human pluripotent stem cells.** Journal of Neuroscience Methods. 2013 Apr;215(1):88-96. <https://doi.org/10.1016/j.jneumeth.2013.02.019>

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

Kauppi J-P, Pajula J, Niemi J, Hari R, Tohka J. **Functional brain segmentation using inter-subject correlation in fMRI.** Human Brain Mapping. 2017 May 1;38(5):2643-2665. <https://doi.org/10.1002/hbm.23549>

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

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

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

Sun L, Peräkylä J, Polvivaara M, Öhman J, Peltola J, Lehtimäki K et al. **Human anterior thalamic nuclei are involved in emotion-attention interaction.** NEUROPSYCHOLOGIA. 2015 Nov 1;78:88-94. <https://doi.org/10.1016/j.neuropsychologia.2015.10.001>

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

Hartikainen KM, Sun L, Polvivaara M, Brause M, Lehtimäki K, Haapasalo J et al. **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. 2014 May 28;36(5):540-550. <https://doi.org/10.1080/13803395.2014.913554>

Rimpiläinen V, Koulouri A, Lucka F, Kaipio JP, Wolters CH. **Improved EEG source localization with Bayesian uncertainty modelling of unknown skull conductivity.** NeuroImage. 2019 Mar 1;188:252-260. <https://doi.org/10.1016/j.neuroimage.2018.11.058>

Lehtimäki M, Paunonen L, Linne M-L. **Improvement of computational efficiency of a biochemical plasticity model.** BMC Neuroscience. 2018 Sep 29;19(Suppl 2):66-66. P130. <https://doi.org/10.1186/s12868-018-0452-x#Sec613>

Tran DT, Iosifidis A, Gabbouj M. **Improving efficiency in convolutional neural networks with multilinear filters.** Neural Networks. 2018 Sep 1;105:328-339. <https://doi.org/10.1016/j.neunet.2018.05.017>

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

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

Sciaccia MFM, Romanucci V, Zarrelli A, Monaco I, Lolicato F, Spinella N et al. **Inhibition of A β Amyloid Growth and Toxicity by Silybins: The Crucial Role of Stereochemistry.** ACS Chemical Neuroscience. 2017 Aug 16;8(8):1767-1778. <https://doi.org/10.1021/acscchemneuro.7b00110>

Dixit D, Sharma V, Ghosh S, Mehta VS, Sen E. **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. 2012 Feb;3(2). e271. <https://doi.org/10.1038/cddis.2012.10>

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. **In silico study on structure and dynamics in bursting neuronal networks.** In Neuroscience 2012; 42nd Annual Meeting, New Orleans, USA, October 14-18, 2012. Society for Neuroscience (SfN). 2012. 300.26/DDD70

Iosifidis A, Tefas A, Pitas I. **Learning sparse representations for view-independent human action recognition based on fuzzy distances.** Neurocomputing. 2013 Dec 9;121:344-353. <https://doi.org/10.1016/j.neucom.2013.05.021>

Špakov O, Isokoski P, Majaranta P. **Look and lean: Accurate head-assisted eye pointing.** In Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014. Association for Computing Machinery. 2014. p. 35-42 <https://doi.org/10.1145/2578153.2578157>

Satuvuori E, Mulansky M, Bozanic N, Malvestio I, Zeldenrust F, Lenk K et al. **Measures of spike train synchrony for data with multiple time scales.** Journal of Neuroscience Methods. 2017 Aug 1;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 et al. **Melatonin pathway genes are associated with progressive subtypes and disability status in multiple sclerosis among Finnish patients.** JOURNAL OF NEUROIMMUNOLOGY. 2012 Sep 15;250(1-2):106-110. <https://doi.org/10.1016/j.jneuroim.2012.05.014>

Lolicato F, Juhola H, Zak A, Postila PA, Saukko A, Rissanen S et al. **Membrane-Dependent Binding and Entry Mechanism of Dopamine into Its Receptor.** ACS Chemical Neuroscience. 2020;11(13):1914–1924. <https://doi.org/10.1021/acscchemneuro.9b00656>

Heikkinen H, Vinberg F, Nymark S, Koskelainen A. **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. 2011 May;105(5):2309-2318. <https://doi.org/10.1152/jn.00536.2010>

Iantovics LB, Emmert-Streib F, Arik S. **MetrlntMeas a novel metric for measuring the intelligence of a swarm of cooperating agents.** Cognitive Systems Research. 2017 Oct 1;45:17-29. <https://doi.org/10.1016/j.cogsys.2017.04.006>

Kaipio ML, Cheour M, Öhman J, Salonen O, Nääätänen R. **Mismatch negativity abnormality in traumatic brain injury without macroscopic lesions on conventional MRI.** NeuroReport. 2013 May 29;24(8):440-444. <https://doi.org/10.1097/WNR.0b013e32836164b4>

Teppola H, Sarkanen JR, Jalonen TO, Linne M-L. **Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol.** Neurochemical Research. 2016;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. **Mortality by clinical characteristics in a tertiary care cohort of adult patients with chronic epilepsy.** EPILEPSIA. 2012 Dec;53(12). <https://doi.org/10.1111/epi.12006>

Juhola H, Postila PA, Rissanen S, Lolicato F, Vattulainen I, Róg T. **Negatively Charged Gangliosides Promote Membrane Association of Amphipathic Neurotransmitters.** Neuroscience. 2018 Aug 1;384:214-223. <https://doi.org/10.1016/j.neuroscience.2018.05.035>

Välkki IA, Lenk K, Mikkonen JE, Kapucu FE, Hyttinen JAK. **Network-wide adaptive burst detection depicts neuronal activity with improved accuracy.** Frontiers in Computational Neuroscience. 2017 May 31;11. 40. <https://doi.org/10.3389/fncom.2017.00040>

Acimovic J. **Neural networks, cell cultures and some older work on data analysis.** 2009. Paper presented at Okinawa Computational Neuroscience Course 2009, Japan.

Wortha SM, Bloechle J, Ninaus M, Kiili K, Lindstedt A, Bahnmueller J et al. **Neurofunctional plasticity in fraction learning: An fMRI training study.** Trends in Neuroscience and Education. 2020 Dec 1;21. 100141. <https://doi.org/10.1016/j.tine.2020.100141>

Pelkonen A, Yavich L. **Neuromuscular pathology in mice lacking alpha-synuclein.** Neuroscience Letters. 2011 Jan 10;487(3):350-353. <https://doi.org/10.1016/j.neulet.2010.10.054>

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

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

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

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. **On the effect of network structure and synaptic mechanisms on sustained bursting activity.** In Cymbalyuk G, Prinz A, editors, Twenty Second Annual Computational Neuroscience Meeting: CNS*2013. Vol. Volume 14 Suppl 1. Paris, France: BioMed Central. 2013. p. P247

Ju YSE, Alexandrov LB, Gerstung M, Martincorena I, Nik-Zainal S, Ramakrishna M et al. **Origins and functional consequences of somatic mitochondrial DNA mutations in human cancer.** eLIFE. 2014;3. <https://doi.org/10.7554/eLife.02935>

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

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

Polinati PP, Ilmarinen T, Trokovic R, Hyotylainen T, Otonkoski T, Suomalainen A et al. **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. 2015;56(5):3371-3382. <https://doi.org/10.1167/iovs.14-14007>

Saurus P, Kuusela S, Lehtonen E, Hyvönen ME, Ristola M, Fogarty CL et al. **Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway.** CELL DEATH AND DISEASE. 2015 May 1;6(5). e1752. <https://doi.org/10.1038/cddis.2015.125>

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

Moradi E, Khundrakpam B, Lewis JD, Evans AC, Tohka J. **Predicting symptom severity in autism spectrum disorder based on cortical thickness measures in agglomerative data.** NeuroImage. 2017;144(A):128-141. <https://doi.org/10.1016/j.neuroimage.2016.09.049>

Rezaei A, Koulouri A, Pursiainen S. **Randomized Multiresolution Scanning in Focal and Fast E/MEG Sensing of Brain Activity with a Variable Depth.** Brain Topography. 2020;33(2):161-175. <https://doi.org/10.1007/s10548-020-00755-8>

Špakov O, Gizatdinova Y. **Real-time hidden gaze point correction**. In Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014. Association for Computing Machinery. 2014. p. 291-294
<https://doi.org/10.1145/2578153.2578200>

Javanainen M, Enkavi G, Guixà-González R, Kulig W, Martinez-Seara H, Levental I et al. **Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions**. PLoS Computational Biology. 2019 May 1;15(5). e1007033. <https://doi.org/10.1371/journal.pcbi.1007033>

Iosifidis A, Tefas A, Pitas I. **Regularized extreme learning machine for multi-view semi-supervised action recognition**. Neurocomputing. 2014 Dec 5;145:250-262. <https://doi.org/10.1016/j.neucom.2014.05.036>

Puhakka IJA, Peltola MJ. **Salivary cortisol reactivity to psychological stressors in infancy: A meta-analysis**. PSYCHONEUROENDOCRINOLOGY. 2020 May 1;115. 104603. <https://doi.org/10.1016/j.psyneuen.2020.104603>

Sibolt G, Curtze S, Melkas S, Pohjasvaara T, Kaste M, Karhunen PJ et al. **Severe cerebral white matter lesions in ischemic stroke patients are associated with less time spent at home and early institutionalization**. INTERNATIONAL JOURNAL OF STROKE. 2015 Dec 1;10(8):1192-1196. <https://doi.org/10.1111/ijss.12578>

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. **Significance of graph theoretic measures in predicting neuronal network activity**. In Proceedings of The 9th annual Computational and Systems Neuroscience meeting (COSYNE 2012). Salt Lake City. 2012. p. 55-55. I-15

Heikkilä H, Rähä KJ. **Simple gaze gestures and the closure of the eyes as an interaction technique**. In Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium. 2012. p. 147-154
<https://doi.org/10.1145/2168556.2168579>

Ilvesmäki T, Koskinen E, Brander A, Luoto T, Öhman J, Eskola H. **Spinal cord injury induces widespread chronic changes in cerebral white matter**. Human Brain Mapping. 2017;38(7):3637-3647. <https://doi.org/10.1002/hbm.23619>

Bron EE, Smits M, van der Flier WM, Vrenken H, Barkhof F, Scheltens P et al. **Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge**. NeuroImage. 2015 May 1;111:562-579. <https://doi.org/10.1016/j.neuroimage.2015.01.048>

Angleraud A, Houbre Q, Pieters R. **Teaching semantics and skills for human-robot collaboration**. Paladyn. 2019;10(1):318-329. <https://doi.org/10.1515/pjbr-2019-0025>

Sharmin S, Špakov O, Rähä KJ. **The effect of different text presentation formats on eye movement metrics in reading**. JOURNAL OF EYE MOVEMENT RESEARCH. 2012;5(3). 3.

Acimovic J, Mäki-Marttunen T, Linne M-L. **The effects of neuron morphology on graph theoretic measures of network connectivity: The analysis of a two-level statistical model**. Frontiers in Neuroanatomy. 2015 Jun 10;9(June). 76.
<https://doi.org/10.3389/fnana.2015.00076>

Saarela C, Karrasch M, Ilvesmäki T, Parkkola R, Rinne JO, Laine M. **The relationship between recognition memory for emotion-laden words and white matter microstructure in normal older individuals**. NeuroReport. 2016 Nov 1;27(18):1345-1349. <https://doi.org/10.1097/WNR.0000000000000704>

Istance H, Vickers S, Hyrskykari A. **The validity of using non-representative users in gaze communication research**. In Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium. 2012. p. 233-236
<https://doi.org/10.1145/2168556.2168603>

Gracia-Tabuenca J, Seppä V-P, Jauhiainen M, Paasilta M, Viik J, Karjalainen J. **Tidal breathing flow profiles during sleep in wheezing children measured by impedance pneumography.** *Respiratory Physiology and Neurobiology.* 2020;271:103312. <https://doi.org/10.1016/j.resp.2019.103312>

Faisal A, Gillberg J, Leen G, Peltonen J. **Transfer learning using a nonparametric sparse topic model.** *Neurocomputing.* 2013 Jul 18;112:124-137. <https://doi.org/10.1016/j.neucom.2012.12.038>

Akkil D, Isokoski P, Kangas J, Rantala J, Raisamo R. **TraQuMe: A tool for measuring the gaze tracking quality.** In *Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014.* Association for Computing Machinery. 2014. p. 327-330 <https://doi.org/10.1145/2578153.2578192>

Teppola H, Aćimović J, Linne ML. **Unique Features of Network Bursts Emerge From the Complex Interplay of Excitatory and Inhibitory Receptors in Rat Neocortical Networks.** *FRONTIERS IN CELLULAR NEUROSCIENCE.* 2019 Sep 6;13:377. <https://doi.org/10.3389/fncel.2019.00377>

Alarautalahti V, Ragauskas S, Hakkarainen JJ, Uusitalo-Järvinen H, Uusitalo H, Hyttinen J et al. **Viability of Mouse Retinal Explant Cultures Assessed by Preservation of Functionality and Morphology.** *Investigative ophthalmology & visual science.* 2019 May 1;60(6):1914-1927. <https://doi.org/10.1167/iovs.18-25156>

Acimovic J, Mäki-Marttunen TM, Linne M-L. **Whole-cell morphological properties of neurons constrain the nonrandom features of network connectivity.** In *Cymbalyuk G, Burkitt A, editors, 24th Annual Computational Neuroscience Meeting: CNS*2015.* Vol. 16 (Suppl 1). Prague: BioMed Central. 2015. p. P:O7. O7

Zou J, Hannula M, Lehto K, Feng H, Lähelmä J, Aula AS et al. **X-ray microtomographic confirmation of the reliability of CBCT in identifying the scalar location of cochlear implant electrode after round window insertion.** *Hearing Research.* 2015 Aug 1;326:59-65. <https://doi.org/10.1016/j.heares.2015.04.005>

He Q, Rezaei A, Pursiainen S. **Zeffiro User Interface for Electromagnetic Brain Imaging: a GPU Accelerated FEM Tool for Forward and Inverse Computations in Matlab.** *Neuroinformatics.* 2019. <https://doi.org/10.1007/s12021-019-09436-9>