

Lenk, Kerstin ; Satuvuori, Eero ; Lallouette, Jules ; Ladrón-de-Guevara, Antonio ; Berry, Hugues ; Hyttinen, Jari A. K. / **A Computational Model of Interactions Between Neuronal and Astrocytic Networks : The Role of Astrocytes in the Stability of the Neuronal Firing Rate.** In: *Frontiers in Computational Neuroscience.* 2020 ; Vol. 13.

Otterpohl, J. R. ; Emmert-Streib, F. ; Pawelzik, K. / **A constrained HMM-based approach to the estimation of perceptual switching dynamics in pigeons.** In: *Neurocomputing.* 2001 ; Vol. 38-40. pp. 1495-1501.

Pursiainen, S. ; Agsten, B. ; Wagner, S. ; Wolters, C. H. / **Advanced boundary electrode modeling for tES and parallel tES/EEG.** In: *IEEE Transactions on Neural Systems and Rehabilitation Engineering.* 2017 ; Vol. 26, No. 1. pp. 37-44.

Ylä-Outinen, Laura ; Tanskanen, Jarno M.A. ; Kapucu, Fikret E. ; Hyysalo, Anu ; Hyttinen, Jari A.K. ; Narkilahti, Susanna. / **Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis.** In *Vitro Neuronal Networks: From Culturing Methods to Neuro-Technological Applications.* Springer New York LLC, 2019. pp. 299-329 (Advances in Neurobiology).

Hagman, Sanna ; Kolasa, Marcin ; Basnyat, Pabitra ; Helminen, Mika ; Kähönen, Mika ; Dastidar, Prasun ; Lehtimäki, Terho ; Elovaara, Irina. / **Analysis of apoptosis-related genes in patients with clinically isolated syndrome and their association with conversion to multiple sclerosis.** In: *JOURNAL OF NEUROIMMUNOLOGY.* 2015 ; Vol. 280. pp. 43-48.

Chen, Ke ; Zhang, Zhaoxiang. / **A Primal Neural Network for Online Equality-Constrained Quadratic Programming.** In: *Cognitive Computation.* 2018 ; Vol. 10, No. 2. pp. 381-388.

Miinalainen, Tuuli ; Rezaei, Atena ; Us, Defne ; Nüßing, Andreas ; Engwer, Christian ; Wolters, Carsten H. ; Pursiainen, Sampsa. / **A realistic, accurate and fast source modeling approach for the EEG forward problem.** In: *NeuroImage.* 2019 ; Vol. 184, No. 1. pp. 56-67.

Pantsar, Tatu ; Rissanen, Sami ; Dauch, Daniel ; Laitinen, Tuomo ; Vattulainen, Ilpo ; Poso, Antti. / **Assessment of mutation probabilities of KRAS G12 missense mutants and their long-timescale dynamics by atomistic molecular simulations and Markov state modeling.** In: *PLoS Computational Biology.* 2018 ; Vol. 14, No. 9.

Ormiskangas, Jaakko ; Valtonen, Olli ; Kivekäs, Ilkka ; Dean, Marc ; Poe, Dennis ; Järnstedt, Jorma ; Lekkala, Jukka ; Harju, Teemu ; Saarenrinne, Pentti ; Rautiainen, Markus. / **Assessment of PIV performance in validating CFD models from nasal cavity CBCT scans.** In: *Respiratory Physiology and Neurobiology.* 2020 ; Vol. 282.

Tenhunen, Mirja ; Hasan, Joel ; Himanen, Sari Leena. / **Assessment of respiratory effort during sleep with noninvasive techniques.** In: *Sleep Medicine Reviews.* 2015 ; Vol. 24. pp. 103-104.

Basnyat, Pabitra ; Hagman, Sanna ; Kolasa, Marcin ; Koivisto, Keijo ; Verkoniemi-Ahola, Auli ; Airas, Laura ; Elovaara, Irina. / **Association between soluble L-selectin and anti-JCV antibodies in natalizumab-treated relapsing-remitting MS patients.** In: *Multiple Sclerosis and Related Disorders.* 2015 ; Vol. 4, No. 4. pp. 334-338.

Klapper, Simon D. ; Garg, Pretty ; Dagar, Sushma ; Lenk, Kerstin ; Gottmann, Kurt ; Nieweg, Katja. / **Astrocyte lineage cells are essential for functional neuronal differentiation and synapse maturation in human iPSC-derived neural networks.** In: *Glia.* 2019 ; Vol. 67, No. 10. pp. 1893-1909.

Vuorio, Joni ; Vattulainen, Ilpo ; Martinez-Seara, Hector. / **Atomistic fingerprint of hyaluronan-CD44 binding.** In: *PLoS Computational Biology.* 2017 ; Vol. 13, No. 7.

Nevalainen, Olli ; Auvinen, Anssi ; Ansakorpi, Hanna ; Raitanen, Jani ; Isojärvi, Jouko. / **Autoimmunity-related immunological serum markers and survival in a tertiary care cohort of adult patients with epilepsy.** In: *EPILEPSY RESEARCH.* 2014 ; Vol. 108, No. 9. pp. 1675-1679.

Hypönen, Jelena ; Hakala, Anna ; Annala, Kaapo ; Zhang, Honglei ; Peltola, Jukka ; Mervaala, Esa ; Kälviäinen, Reetta. / **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.** In: *Seizure.* 2020 ; Vol. 76. pp. 72-78.

Tanskanen, Jarno M.A. ; Kapucu, Fikret E. ; Välikki, Inkeri ; Hyttinen, Jari A.K. / **Automatic objective thresholding to detect neuronal action potentials**. Proceedings of 2016 24th European Signal Processing Conference (EUSIPCO). 2016. pp. 662-666

Spruijt-Metz, Donna ; Hekler, Eric ; Saranummi, Niilo ; Intille, Stephen ; Korhonen, Ilkka ; Nilsen, Wendy ; Rivera, Daniel E. ; Spring, Bonnie ; Michie, Susan ; Asch, David A. ; Sanna, Alberto ; Salcedo, Vicente Traver ; Kukakfa, Rita ; Pavel, Misha. / **Building new computational models to support health behavior change and maintenance : new opportunities in behavioral research**. In: Translational Behavioral Medicine. 2015 ; Vol. 5, No. 3. pp. 335-346.

Mokkila, Sini ; Postila, Pekka A. ; Rissanen, Sami ; Juhola, Hanna ; Vattulainen, Ilpo ; Róg, Tomasz. / **Calcium Assists Dopamine Release by Preventing Aggregation on the Inner Leaflet of Presynaptic Vesicles**. In: ACS Chemical Neuroscience. 2017 ; Vol. 8, No. 6. pp. 1242-1250.

Kreutzer, Joose ; Ylä-Outinen, Laura ; Mäki, Antti ; Ristola, Mervi ; Narkilahti, Susanna ; Kallio, Pasi. / **Cell culture chamber with gas supply for prolonged recording of human neuronal cells on microelectrode array**. In: Journal of Neuroscience Methods. 2017 ; Vol. 280. pp. 27-35.

Waris, Muhammad Adeel ; Iosifidis, Alexandros ; Gabbouj, Moncef. / **CNN-based edge filtering for object proposals**. In: Neurocomputing. 2017 ; Vol. 266. pp. 631-640.

Gavas, Rahul D. ; Tripathy, Soumya Ranjan ; Chatterjee, Debatri ; Sinha, Aniruddha. / **Cognitive load and metacognitive confidence extraction from pupillary response**. In: Cognitive Systems Research. 2018 ; Vol. 52. pp. 325-334.

Špakov, Oleg. / **Comparison of eye movement filters used in HCI**. Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium. 2012. pp. 281-284

Tohka, Jussi ; Moradi, Elaheh ; Huttunen, Heikki ; 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**. In: Neuroinformatics. 2016 ; Vol. 14, No. 3. pp. 279-296.

Acar, Gül Ozbilen ; Kivekäs, Ilkka ; Hanna, Bassem M. ; Huang, Lin ; Gopen, Quinton ; Poe, Dennis S. / **Comparison of stapedotomy minus prosthesis, circumferential stapes mobilization, and small fenestra stapedotomy for stapes fixation**. In: OTOLOGY AND NEUROTOLOGY. 2014 ; Vol. 35, No. 4.

Acimovic, Jugoslava ; Mäki-Marttunen, Tuomo ; Linne, Marja-Leena. / **Computational modeling of growth in cortical cultures using the NETMORPH simulation tool**. Neuroscience 2010, 40th Annual Meeting, San Diego, USA, 13-17 November 2010. 2010. pp. 2 p

Acimovic, Jugoslava ; Mäki-Marttunen, Tuomo ; Linne, Marja-Leena. / **Computational study of structural changes in neuronal networks during growth: a model of dissociated neocortical cultures**. Twentieth Annual Computational Neuroscience Meeting: CNS*2011. editor / Jean-Marc Fellous ; Astrid Prinz. Vol. 12 (Suppl 1) Stockholm : BioMed Central, 2011. pp. P203 (Annual Computational Neuroscience Meeting CNS).

Acimovic, Jugoslava ; Teppola, Heidi ; Selinummi, Jyrki Juhani ; Linne, Marja-Leena. / **Computational tools for assessing the properties of 2D neural cell cultures**. Eighteenth Annual Computational Neuroscience Meeting: CNS*2009. editor / Don Johnson. Vol. 10 (Suppl 1) Berlin : BioMed Central, 2009. pp. P170

Enkavi, Giray ; Mikkolainen, Heikki ; Güngör, Burçin ; Ikonen, Elina ; Vattulainen, Ilpo. / **Concerted regulation of npc2 binding to endosomal/lysosomal membranes by bis(monoacylglycero)phosphate and sphingomyelin**. In: PLoS Computational Biology. 2017 ; Vol. 13, No. 10.

Pelkonen, Anssi ; Yavich, Leonid. / **Cortical spreading depression in alpha-synuclein knockout mice**. In: SYNAPSE. 2012 ; Vol. 66, No. 1. pp. 81-84.

Malmivaara, K. ; Ohman, J. ; Kivisaari, R. ; Hernesniemi, J. ; Siironen, J. / **Cost-effectiveness of decompressive craniectomy in non-traumatic neurological emergencies**. In: European Journal of Neurology. 2011 ; Vol. 18, No. 3. pp. 402-409.

Sharma, Vivek ; Dixit, Deobrat ; Ghosh, Sadashib ; Sen, Ellora. / **COX-2 regulates the proliferation of glioma stem like cells**. In: NEUROCHEMISTRY INTERNATIONAL. 2011 ; Vol. 59, No. 5. pp. 567-571.

Acimovic, Jugoslava ; Teppola, Heidi ; Mäki-Marttunen, Tuomo Mikael ; Linne, Marja-Leena. / **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?**. Paper presented at Brain and Mind Symposium 2018, Helsinki, Finland.

Acimovic, Jugoslava ; Teppola, Heidi ; Mäki-Marttunen, Tuomo Mikael ; Linne, Marja-Leena. / **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?**. In: BMC Neuroscience. 2018 ; Vol. 19, No. Suppl 2. pp. 68-69.

Tavakoli, Hamed Rezazadegan ; Borji, Ali ; Kannala, Juho ; Rahtu, Esa. / **Deep audio-visual saliency : Baseline model and data**. Proceedings ETRA 2020 Short Papers - ACM Symposium on Eye Tracking Research and Applications, ETRA 2020. editor / Stephen N. Spencer. ACM, 2020.

Möttönen, T. ; Katisko, J. ; Haapasalo, J. ; Tähtinen, T. ; Kiekara, T. ; Kähärä, V. ; Peltola, J. ; Öhman, J. ; Lehtimäki, K. / **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**. In: NeuroImage: Clinical. 2015 ; Vol. 7. pp. 823-829.

Kolasa, Marcin ; Hakulinen, Ullamari ; Brander, Antti ; Hagman, Sanna ; Dastidar, Prasun ; Elovaara, Irina ; Sumelahti, Marja-Liisa. / **Diffusion tensor imaging and disability progression in multiple sclerosis : A 4-year follow-up study**. In: Brain and Behavior. 2019 ; Vol. 9, No. 1.

Salminen, Aaro V. ; Manconi, Mauro ; Rimpilä, Ville ; Luoto, Teemu M. ; Koskinen, Eerika ; Ferri, Raffaele ; Öhman, Juha ; Polo, Olli. / **Disconnection between periodic leg movements and cortical arousals in spinal cord injury**. In: JOURNAL OF CLINICAL SLEEP MEDICINE. 2013 ; Vol. 9, No. 11. pp. 1207-1209.

Hagman, Sanna ; Raunio, Minna ; Rossi, Maija ; Dastidar, Prasun ; Elovaara, Irina. / **Disease-associated inflammatory biomarker profiles in blood in different subtypes of multiple sclerosis : Prospective clinical and MRI follow-up study**. In: JOURNAL OF NEUROIMMUNOLOGY. 2011 ; Vol. 234, No. 1-2. pp. 141-147.

Iosifidis, Alexandros ; Tefas, Anastasios ; Pitas, Ioannis. / **Distance-based human action recognition using optimized class representations**. In: Neurocomputing. 2015 ; Vol. 161. pp. 47-55.

Iosifidis, Alexandros ; Tefas, Anastasios ; Pitas, Ioannis. / **DropELM : Fast neural network regularization with Dropout and DropConnect**. In: Neurocomputing. 2015 ; Vol. 162. pp. 57-66.

Berry, Justin ; Frederiksen, Rikard ; Yao, Yun ; Nymark, Soile ; Chen, Jeannie ; Cornwall, Carter. / **Effect of rhodopsin phosphorylation on dark adaptation in mouse rods**. In: Journal of Neuroscience. 2016 ; Vol. 36, No. 26. pp. 6973-6987.

Juuti-Uusitalo, Kati ; Nieminen, Monica ; Treumer, Felix ; Ampuja, Minna ; Kallioniemi, Anne ; Klettner, Alexa ; Skottman, Heli. / **Effects of cytokine activation and oxidative stress on the function of the human embryonic stem cell-derived retinal pigment epithelial cells**. In: Investigative Ophthalmology and Visual Science. 2015 ; Vol. 56, No. 11. pp. 6265-6274.

Pelkonen, Anssi ; Kallunki, Pekka ; Yavich, Leonid. / **Effects of exogenous alpha-synuclein on stimulated dopamine overflow in dorsal striatum**. In: Neuroscience Letters. 2013 ; Vol. 554. pp. 141-145.

Mäki-Marttunen, Tuomo Mikael ; Acimovic, Jugoslava ; Ruohonen, Keijo Pellervo ; Linne, Marja-Leena. / **Effects of local structure of neuronal networks on spiking activity in silico**. Twentieth Annual Computational Neuroscience Meeting: CNS*2011. editor / Jean-Marc Fellous ; Astrid Prinz. Vol. 12 (Suppl 1) Stockholm : BioMed Central, 2011. pp. P202

Mäki-Marttunen, Tuomo ; Acimovic, Jugoslava ; Ruohonen, Keijo ; Linne, Marja-Leena. / **Effects of structure on spontaneous activity in simulated neuronal networks**. Proceedings of Mathematical Neuroscience (ICMS 2011), April 11-13, 2011, Edinburgh, Scotland. 2011.

Basnyat, Pabitra ; Natarajan, Renuka ; Vistbakka, Julia ; Lehtikangas, Maija ; Airas, Laura ; Matinlauri, Irma ; Elovaara, Irina ; Hagman, Sanna. / **Elevated levels of soluble CD26 and CD30 in multiple sclerosis**. In: Clinical and Experimental Neuroimmunology. 2015 ; Vol. 6, No. 4. pp. 419-425.

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

Sonkajärvi, Eila ; Rytty, Seppo ; Alahuhta, Seppo ; Suominen, Kalervo ; Kumpulainen, Timo ; Ohtonen, Pasi ; Karvonen, Elina ; Jäntti, Ville. / **Epileptiform and periodic EEG activities induced by rapid sevoflurane anaesthesia induction**. In: Clinical Neurophysiology. 2018 ; Vol. 129, No. 3. pp. 638-645.

Otterpohl, J. R. ; Haynes, J. D. ; 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)**. In: Journal of Physiology: Paris. 2001 ; Vol. 95, No. 1-6. pp. 497.

Kivekäs, Ilkka ; Pöyhönen, Leena ; Aarnisalo, Antti ; Rautiainen, Markus ; Poe, Dennis. / **Eustachian tube mucosal inflammation scale validation based on digital video images**. In: OTOLOGY AND NEUROTOLOGY. 2015 ; Vol. 36, No. 10. pp. 1748-1752.

Tenhunen, Mirja ; Huupponen, Eero ; Hasan, Joel ; Heino, Otto ; Himanen, Sari Leena. / **Evaluation of the different sleep-disordered breathing patterns of the compressed tracheal sound**. In: Clinical Neurophysiology. 2015 ; Vol. 126, No. 8. pp. 1557-1563.

Franco, Pedro ; Väri, Alpo. / **Experiments of the sonification of the sleep electroencephalogram**. In: Finnish Journal of eHealth and eWelfare. 2015 ; Vol. 7, No. 2-3. pp. 65-74.

Melkas, S. ; Sibolt, G. ; Oksala, N. K J ; Putaala, J. ; Pohjasvaara, T. ; Kaste, M. ; Karhunen, P. J. ; Erkinjuntti, T. / **Extensive white matter changes predict stroke recurrence up to 5 years after a first-ever ischemic stroke**. In: CEREBROVASCULAR DISEASES. 2012 ; Vol. 34, No. 3. pp. 191-198.

Otterpohl, J. R. ; Haynes, J. D. ; 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**. In: Journal of Physiology: Paris. 2000 ; Vol. 94, No. 5-6. pp. 555-567.

Iosifidis, Alexandros. / **Extreme learning machine based supervised subspace learning**. In: Neurocomputing. 2015 ; Vol. 167. pp. 158-164.

Pajarinen, Joni ; Peltonen, Jaakko ; Uusitalo, Mikko A. / **Fault tolerant machine learning for nanoscale cognitive radio**. In: Neurocomputing. 2011 ; Vol. 74, No. 5. pp. 753-764.

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**. In: Journal of Neuroscience Methods. 2013 ; Vol. 215, No. 1. pp. 88-96.

Oschmann, Franziska ; Berry, Hugues ; Obermayer, Klaus ; Lenk, Kerstin. / **From in silico astrocyte cell models to neuron-astrocyte network models : A review.** In: BRAIN RESEARCH BULLETIN. 2018 ; Vol. 136. pp. 76-84.

Kauppi, Jukka-Pekka ; Pajula, Juha ; Niemi, Jari ; Hari, Riitta ; Tohka, Jussi. / **Functional brain segmentation using inter-subject correlation in fMRI.** In: Human Brain Mapping. 2017 ; Vol. 38, No. 5. pp. 2643-2665.

Hyrskkari, Aulikki ; Istance, Howell ; Vickers, Stephen. / **Gaze gestures or dwell-based interaction?.** Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium. 2012. pp. 229-232

Kangas, Jari ; Rantala, Jussi ; Majaranta, Päivi ; Isokoski, Poika ; Raisamo, Roope. / **Haptic feedback to gaze events.** Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014. Association for Computing Machinery, 2014. pp. 11-18

Pajula, Juha ; Tohka, Jussi. / **How Many Is Enough? Effect of Sample Size in Inter-Subject Correlation Analysis of fMRI.** In: Computational Intelligence and Neuroscience. 2016 ; Vol. 2016.

Sun, Lihua ; Peräkylä, Jari ; Polvivaara, Markus ; Öhman, Juha ; Peltola, Jukka ; Lehtimäki, Kai ; Huhtala, Heini ; Hartikainen, Kaisa M. / **Human anterior thalamic nuclei are involved in emotion-attention interaction.** In: NEUROPSYCHOLOGIA. 2015 ; Vol. 78. pp. 88-94.

Angleraud, Alexandre ; Houbre, Quentin ; Kyrki, Ville ; Pieters, Roel. / **Human-robot interactive learning architecture using ontologies and symbol manipulation.** RO-MAN 2018 - 27th IEEE International Symposium on Robot and Human Interactive Communication: August 27-31, 2018, Nanjing, China.. IEEE, 2018. pp. 384-389 (IEEE RO-MAN).

Hartikainen, Kaisa M. ; Sun, Lihua ; Polvivaara, Markus ; Brause, Maarja ; Lehtimäki, Kai ; Haapasalo, Joonas ; Möttönen, Timo ; Väyrynen, Kirsi ; Ogawa, Keith H. ; Öhman, Juha ; Peltola, Jukka. / **Immediate effects of deep brain stimulation of anterior thalamic nuclei on executive functions and emotion-attention interaction in humans.** In: JOURNAL OF CLINICAL AND EXPERIMENTAL NEUROPSYCHOLOGY. 2014 ; Vol. 36, No. 5. pp. 540-550.

Rimpiläinen, Ville ; Koulouri, Alexandra ; Lucka, Felix ; Kaipio, Jari P. ; Wolters, Carsten H. / **Improved EEG source localization with Bayesian uncertainty modelling of unknown skull conductivity.** In: NeuroImage. 2019 ; Vol. 188. pp. 252-260.

Lehtimäki, Mikko ; Paunonen, Lassi ; Linne, Marja-Leena. / **Improvement of computational efficiency of a biochemical plasticity model.** In: BMC Neuroscience. 2018 ; Vol. 19, No. Suppl 2. pp. 66-66.

Tran, Dat Thanh ; Iosifidis, Alexandros ; Gabbouj, Moncef. / **Improving efficiency in convolutional neural networks with multilinear filters.** In: Neural Networks. 2018 ; Vol. 105. pp. 328-339.

Emmert-Streib, Frank. / **Influence of the experimental design of gene expression studies on the inference of gene regulatory networks : Environmental factors.** In: PeerJ. 2013 ; Vol. 2013, No. 1.

Emmert-Streib, Frank. / **Influence of the neural network topology on the learning dynamics.** In: Neurocomputing. 2006 ; Vol. 69, No. 10-12. pp. 1179-1182.

Sciaccia, Michele F.M. ; Romanucci, Valeria ; Zarrelli, Armando ; Monaco, Irene ; Lolicato, Fabio ; Spinella, Natalia ; Galati, Clelia ; Grasso, Giuseppe ; D'Urso, Luisa ; Romeo, Margherita ; Diomedede, Luisa ; Salmons, Mario ; Bongiorno, Corrado ; Di Fabio, Giovanni ; La Rosa, Carmelo ; Milardi, Danilo. / **Inhibition of A β Amyloid Growth and Toxicity by Silybins : The Crucial Role of Stereochemistry.** In: ACS Chemical Neuroscience. 2017 ; Vol. 8, No. 8. pp. 1767-1778.

Dixit, D. ; Sharma, V. ; Ghosh, S. ; Mehta, V. S. ; 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.** In: CELL DEATH AND DISEASE. 2012 ; Vol. 3, No. 2.

Mäki-Marttunen, Tuomo Mikael ; Acimovic, Jugoslava ; Ruohonen, Keijo Pellervo ; Linne, Marja-Leena. / **In silico study on structure and dynamics in bursting neuronal networks**. Neuroscience 2012; 42nd Annual Meeting, New Orleans, USA, October 14-18, 2012. Society for Neuroscience (SfN), 2012.

Iosifidis, Alexandros ; Tefas, Anastasios ; Pitas, Ioannis. / **Learning sparse representations for view-independent human action recognition based on fuzzy distances**. In: Neurocomputing. 2013 ; Vol. 121. pp. 344-353.

Špakov, Oleg ; Isokoski, Poika ; Majaranta, Päivi. / **Look and lean : Accurate head-assisted eye pointing**. Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014. Association for Computing Machinery, 2014. pp. 35-42

Satuvuori, Eero ; Mulansky, Mario ; Bozanic, Nebojsa ; Malvestio, Irene ; Zeldenrust, Fleur ; Lenk, Kerstin ; Kreuz, Thomas. / **Measures of spike train synchrony for data with multiple time scales**. In: Journal of Neuroscience Methods. 2017 ; Vol. 287. pp. 25-38.

Natarajan, Renuka ; Einarsdottir, Elisabet ; Riutta, Asko ; Hagman, Sanna ; Raunio, Minna ; Mononen, Nina ; Lehtimäki, Terho ; Elovaara, Irina. / **Melatonin pathway genes are associated with progressive subtypes and disability status in multiple sclerosis among Finnish patients**. In: JOURNAL OF NEUROIMMUNOLOGY. 2012 ; Vol. 250, No. 1-2. pp. 106-110.

Lolicato, Fabio ; Juhola, Hanna ; Zak, Agata ; Postila, Pekka A. ; Saukko, Annina ; Rissanen, Sami ; Enkavi, Giray ; Vattulainen, Ilpo ; Kepczynski, Mariusz ; Róg, Tomasz. / **Membrane-Dependent Binding and Entry Mechanism of Dopamine into Its Receptor**. In: ACS Chemical Neuroscience. 2020 ; Vol. 11, No. 13. pp. 1914–1924.

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**. In: Journal of Neurophysiology. 2011 ; Vol. 105, No. 5. pp. 2309-2318.

Iantovics, Laszlo Barna ; Emmert-Streib, Frank ; Arik, Sabri. / **MetrIntMeas a novel metric for measuring the intelligence of a swarm of cooperating agents**. In: Cognitive Systems Research. 2017 ; Vol. 45. pp. 17-29.

Kaipio, Marja Liisa ; Cheour, Marie ; Öhman, Juha ; Salonen, Oili ; Näätänen, Risto. / **Mismatch negativity abnormality in traumatic brain injury without macroscopic lesions on conventional MRI**. In: NeuroReport. 2013 ; Vol. 24, No. 8. pp. 440-444.

Teppola, Heidi ; Sarkanen, Jertta Riina ; Jalonen, Tuula O. ; Linne, Marja-Leena. / **Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol**. In: Neurochemical Research. 2016 ; Vol. 41, No. 4. pp. 731-747.

Nevalainen, Olli ; Auvinen, Anssi ; Ansakorpi, Hanna ; Artama, Miia ; Raitanen, Jani ; Isojärvi, Jouko. / **Mortality by clinical characteristics in a tertiary care cohort of adult patients with chronic epilepsy**. In: EPILEPSIA. 2012 ; Vol. 53, No. 12.

Juhola, Hanna ; Postila, Pekka A. ; Rissanen, Sami ; Lolicato, Fabio ; Vattulainen, Ilpo ; Róg, Tomasz. / **Negatively Charged Gangliosides Promote Membrane Association of Amphipathic Neurotransmitters**. In: Neuroscience. 2018 ; Vol. 384. pp. 214-223.

Välkki, Inkeri A. ; Lenk, Kerstin ; Mikkonen, Jarno E. ; Kapucu, Fikret E. ; Hyttinen, Jari A.K. / **Network-wide adaptive burst detection depicts neuronal activity with improved accuracy**. In: Frontiers in Computational Neuroscience. 2017 ; Vol. 11.

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

Wortha, Silke M. ; Bloechle, Johannes ; Ninaus, Manuel ; Kiili, Kristian ; Lindstedt, Antero ; Bahnmüller, Julia ; Moeller, Korbinian ; Klein, Elise. / **Neurofunctional plasticity in fraction learning : An fMRI training study**. In: Trends in Neuroscience and Education. 2020 ; Vol. 21.

Pelkonen, Anssi ; Yavich, Leonid. / **Neuromuscular pathology in mice lacking alpha-synuclein**. In: Neuroscience Letters. 2011 ; Vol. 487, No. 3. pp. 350-353.

Sharma, Vivek ; Bala, Ashu ; Deshmukh, Rahul ; Bedi, K. L. ; Sharma, P. L. / **Neuroprotective effect of RO-20-1724-a phosphodiesterase4 inhibitor against intracerebroventricular streptozotocin induced cognitive deficit and oxidative stress in rats**. In: PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR. 2012 ; Vol. 101, No. 2. pp. 239-245.

Xiao, Lin ; Liao, Bolin ; Li, Shuai ; Chen, Ke. / **Nonlinear recurrent neural networks for finite-time solution of general time-varying linear matrix equations**. In: Neural Networks. 2018 ; Vol. 98. pp. 102-113.

Iosifidis, Alexandros ; Mygdalis, Vasileios ; Tefas, Anastasios ; Pitas, Ioannis. / **One-Class Classification based on Extreme Learning and Geometric Class Information**. In: Neural Processing Letters. 2016 ; pp. 1-16.

Mäki-Marttunen, Tuomo Mikael ; Acimovic, Jugoslava ; Ruohonen, Keijo Pellervo ; Linne, Marja-Leena. / **On the effect of network structure and synaptic mechanisms on sustained bursting activity**. Twenty Second Annual Computational Neuroscience Meeting: CNS*2013. editor / Gennady Cymbalyuk ; Astrid Prinz. Vol. Volume 14 Suppl 1 Paris, France : BioMed Central, 2013. pp. P247

Ju, Young S.eok ; Alexandrov, Ludmil B. ; Gerstung, Moritz ; Martincorena, Inigo ; Nik-Zainal, Serena ; Ramakrishna, Manasa ; Davies, Helen R. ; Papaemmanuil, Elli ; Gundem, Gunes ; Shlien, Adam ; Bolli, Niccolo ; Behjati, Sam ; Tarpey, Patrick S. ; Nangalia, Jyoti ; Massie, Charles E. ; Butler, Adam P. ; Teague, Jon W. ; Vassiliou, George S. ; Green, Anthony R. ; Du, Ming Qing ; Unnikrishnan, Ashwin ; Pimanda, John E. ; Teh, Bin T.ean ; Munshi, Nikhil ; Greaves, Mel ; Vyas, Paresh ; El-Naggar, Adel K. ; Santarius, Tom ; Collins, V. Peter ; Grundy, Richard ; Taylor, Jack A. ; Hayes, D. Neil ; Malkin, David ; Foster, Christopher S. ; Warren, Anne Y. ; Whitaker, Hayley C. ; Brewer, Daniel ; Eeles, Rosalind ; Cooper, Colin ; Neal, David ; Visakorpi, Tapio ; Isaacs, William B. ; Bova, G. Steven ; Flanagan, Adrienne M. ; Futreal, P. Andrew ; Lynch, Andy G. ; Chinnery, Patrick F. ; McDermott, Ultan ; Stratton, Michael R. ; Campbell, Peter J. / **Origins and functional consequences of somatic mitochondrial DNA mutations in human cancer**. In: eLIFE. 2014 ; Vol. 3.

Rönkkö, Topi ; Timonen, Hilka. / **Overview of Sources and Characteristics of Nanoparticles in Urban Traffic-Influenced Areas**. In: Journal of Alzheimer's Disease. 2019 ; Vol. 72, No. 1. pp. 15-28.

Emmert-Streib, Frank ; Glazko, Galina V. / **Pathway analysis of expression data : Deciphering functional building blocks of complex diseases**. In: PLoS Computational Biology. 2011 ; Vol. 7, No. 5.

Polinati, Padmini P. ; Ilmarinen, Tanja ; Trokovic, Ras ; Hyotylainen, Tuulia ; Otonkoski, Timo ; Suomalainen, Anu ; Skottman, Heli ; Tyniitiina, Tiina. / **Patient-specific induced pluripotent stem cell—derived RPE cells : Understanding the pathogenesis of retinopathy in long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency**. In: Investigative Ophthalmology and Visual Science. 2015 ; Vol. 56, No. 5. pp. 3371-3382.

Saurus, P. ; Kuusela, S. ; Lehtonen, E. ; Hyvönen, M. E. ; Ristola, M. ; Fogarty, C. L. ; Tienari, J. ; Lassenius, M. I. ; Forsblom, C. ; Lehto, M. ; Saleem, M. A. ; Groop, P. H. ; Holthöfer, H. ; Lehtonen, S. / **Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway**. In: CELL DEATH AND DISEASE. 2015 ; Vol. 6, No. 5.

Sibolt, Gerli ; Curtze, Sami ; Melkas, Susanna ; Pohjasvaara, Tarja ; Kaste, Markku ; Karhunen, Pekka J. ; Oksala, Niku K J ; Vataja, Risto ; Erkinjuntti, Timo. / **Post-stroke depression and depression-executive dysfunction syndrome are associated with recurrence of ischaemic stroke**. In: CEREBROVASCULAR DISEASES. 2013 ; Vol. 36, No. 5-6. pp. 336-343.

Moradi, Elaheh ; Khundrakpam, Budhachandra ; Lewis, John D. ; Evans, Alan C. ; Tohka, Jussi. / **Predicting symptom severity in autism spectrum disorder based on cortical thickness measures in agglomerative data**. In: NeuroImage. 2017 ; Vol. 144, No. A. pp. 128-141.

Rezaei, A. ; Koulouri, A. ; Pursiainen, S. / **Randomized Multiresolution Scanning in Focal and Fast E/MEG Sensing of Brain Activity with a Variable Depth**. In: Brain Topography. 2020 ; Vol. 33, No. 2. pp. 161-175.

Špakov, Oleg ; Gizatdinova, Yulia. / **Real-time hidden gaze point correction**. Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014. Association for Computing Machinery, 2014. pp. 291-294

Javanainen, Matti ; Enkavi, Giray ; Guixà-González, Ramon ; Kulig, Waldemar ; Martinez-Seara, Hector ; Levental, Ilya ; Vattulainen, Ilpo. / **Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions**. In: PLoS Computational Biology. 2019 ; Vol. 15, No. 5.

Iosifidis, Alexandros ; Tefas, Anastasios ; Pitas, Ioannis. / **Regularized extreme learning machine for multi-view semi-supervised action recognition**. In: Neurocomputing. 2014 ; Vol. 145. pp. 250-262.

Puhakka, Ilmari J.A. ; Peltola, Mikko J. / **Salivary cortisol reactivity to psychological stressors in infancy : A meta-analysis**. In: PSYCHONEUROENDOCRINOLOGY. 2020 ; Vol. 115.

Sibolt, Gerli ; Curtze, Sami ; Melkas, Susanna ; Pohjasvaara, Tarja ; Kaste, Markku ; Karhunen, Pekka J. ; Oksala, Niku K J ; Erkinjuntti, Timo. / **Severe cerebral white matter lesions in ischemic stroke patients are associated with less time spent at home and early institutionalization**. In: INTERNATIONAL JOURNAL OF STROKE. 2015 ; Vol. 10, No. 8. pp. 1192-1196.

Mäki-Marttunen, Tuomo Mikael ; Acimovic, Jugoslava ; Ruohonen, Keijo Pellervo ; Linne, Marja-Leena. / **Significance of graph theoretic measures in predicting neuronal network activity**. Proceedings of The 9th annual Computational and Systems Neuroscience meeting (COSYNE 2012). Salt Lake City, 2012. pp. 55-55

Heikkilä, Henna ; Rähä, Kari Jouko. / **Simple gaze gestures and the closure of the eyes as an interaction technique**. Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium. 2012. pp. 147-154

Ilvesmäki, Tero ; Koskinen, Eerika ; Brander, Antti ; Luoto, Teemu ; Öhman, Juha ; Eskola, Hannu. / **Spinal cord injury induces widespread chronic changes in cerebral white matter**. In: Human Brain Mapping. 2017 ; Vol. 38, No. 7. pp. 3637-3647.

Bron, Esther E. ; Smits, Marion ; van der Flier, Wiesje M. ; Vrenken, Hugo ; Barkhof, Frederik ; Scheltens, Philip ; Papma, Janne M. ; Steketee, Rebecca M E ; Méndez Orellana, Carolina ; Meijboom, Rozanna ; Pinto, Madalena ; Meireles, Joana R. ; Garrett, Carolina ; Bastos-Leite, António J. ; Abdulkadir, Ahmed ; Ronneberger, Olaf ; Amoroso, Nicola ; Bellotti, Roberto ; Cárdenas-Peña, David ; Álvarez-Meza, Andrés M. ; Dolph, Chester V. ; Iftekharuddin, Khan M. ; Eskildsen, Simon F. ; Coupé, Pierrick ; Fonov, Vladimir S. ; Franke, Katja ; Gaser, Christian ; Ledig, Christian ; Guerrero, Ricardo ; Tong, Tong ; Gray, Katherine R. ; Moradi, Elaheh ; Tohka, Jussi ; Routier, Alexandre ; Durrleman, Stanley ; Sarica, Alessia ; Di Fatta, Giuseppe ; Sensi, Francesco ; Chincarini, Andrea ; Smith, Garry M. ; Stoyanov, Zhivko V. ; Sørensen, Lauge ; Nielsen, Mads ; Tangaro, Sabina ; Inglese, Paolo ; Wachinger, Christian ; Reuter, Martin ; van Swieten, John C. ; Niessen, Wiro J. ; Klein, Stefan. / **Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI : The CADDementia challenge**. In: NeuroImage. 2015 ; Vol. 111. pp. 562-579.

Angleraud, Alexandre ; Houbre, Quentin ; Pieters, Roel. / **Teaching semantics and skills for human-robot collaboration**. In: Paladyn. 2019 ; Vol. 10, No. 1. pp. 318-329.

Sharmin, Selina ; Špakov, Oleg ; Rähä, Kari Jouko. / **The effect of different text presentation formats on eye movement metrics in reading**. In: JOURNAL OF EYE MOVEMENT RESEARCH. 2012 ; Vol. 5, No. 3.

Acimovic, Jugoslava ; Mäki-Marttunen, Tuomo ; Linne, Marja-Leena. / **The effects of neuron morphology on graph theoretic measures of network connectivity : The analysis of a two-level statistical model**. In: Frontiers in Neuroanatomy. 2015 ; Vol. 9, No. June.

Saarela, Carina ; Karrasch, Mira ; Ilvesmäki, Tero ; Parkkola, Riitta ; Rinne, Juha O. ; Laine, Matti. / **The relationship between recognition memory for emotion-laden words and white matter microstructure in normal older individuals.** In: NeuroReport. 2016 ; Vol. 27, No. 18. pp. 1345-1349.

Istance, Howell ; Vickers, Stephen ; Hyrskykari, Aulikki. / **The validity of using non-representative users in gaze communication research.** Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium. 2012. pp. 233-236

Gracia-Tabuenca, Javier ; Seppä, Ville-Pekka ; Jauhiainen, Milla ; Paassilta, Marita ; Viik, Jari ; Karjalainen, Jussi. / **Tidal breathing flow profiles during sleep in wheezing children measured by impedance pneumography.** In: Respiratory Physiology and Neurobiology. 2020 ; Vol. 271.

Faisal, Ali ; Gillberg, Jussi ; Leen, Gayle ; Peltonen, Jaakko. / **Transfer learning using a nonparametric sparse topic model** . In: Neurocomputing. 2013 ; Vol. 112. pp. 124-137.

Akkil, Deepak ; Isokoski, Poika ; Kangas, Jari ; Rantala, Jussi ; Raisamo, Roope. / **TraQuMe : A tool for measuring the gaze tracking quality.** Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014. Association for Computing Machinery, 2014. pp. 327-330

Teppola, Heidi ; Aćimović, Jugoslava ; Linne, Marja Leena. / **Unique Features of Network Bursts Emerge From the Complex Interplay of Excitatory and Inhibitory Receptors in Rat Neocortical Networks.** In: FRONTIERS IN CELLULAR NEUROSCIENCE. 2019 ; Vol. 13.

Alarautalahti, Virpi ; Ragauskas, Symantas ; Hakkarainen, Jenni J. ; Uusitalo-Järvinen, Hannele ; Uusitalo, Hannu ; Hyttinen, Jari ; Kalesnykas, Giedrius ; Nymark, Soile. / **Viability of Mouse Retinal Explant Cultures Assessed by Preservation of Functionality and Morphology.** In: Investigative ophthalmology & visual science. 2019 ; Vol. 60, No. 6. pp. 1914-1927.

Acimovic, Jugoslava ; Mäki-Marttunen, Tuomo Mikael ; Linne, Marja-Leena. / **Whole-cell morphological properties of neurons constrain the nonrandom features of network connectivity.** 24th Annual Computational Neuroscience Meeting: CNS*2015. editor / Gennady Cymbalyuk ; Anthony Burkitt. Vol. 16 (Suppl 1) Prague : BioMed Central, 2015. pp. P:O7

Zou, Jing ; Hannula, Markus ; Lehto, Kalle ; Feng, Hao ; Lähelmä, Jaakko ; Aula, Antti S. ; Hyttinen, Jari ; Pyykkö, Ilmari. / **X-ray microtomographic confirmation of the reliability of CBCT in identifying the scalar location of cochlear implant electrode after round window insertion.** In: Hearing Research. 2015 ; Vol. 326. pp. 59-65.

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.** In: Neuroinformatics. 2019.