

Neurofunctional plasticity in fraction learning: An fMRI training study

Wortha, S. M., Bloechle, J., Ninaus, M., Kiili, K., Lindstedt, A., Bahnmueller, J., Moeller, K. & Klein, E., 1 Dec 2020, In : Trends in Neuroscience and Education. 21, 15 p., 100141.

Research output: Contribution to journal > Article > Scientific > peer-review

Assessment of PIV performance in validating CFD models from nasal cavity CBCT scans

Ormiskangas, J., Valtonen, O., Kivekäs, I., Dean, M., Poe, D., Järnstedt, J., Leikkala, J., Harju, T., Saarenrinne, P. & Rautiainen, M., 1 Nov 2020, In : Respiratory Physiology and Neurobiology. 282, 9 p., 103508.

Research output: Contribution to journal > Article > Scientific > peer-review

Salivary cortisol reactivity to psychological stressors in infancy: A meta-analysis

Puhakka, I. J. A. & Peltola, M. J., 1 May 2020, In : PSYCHONEUROENDOCRINOLOGY. 115, 104603.

Research output: Contribution to journal > Review Article > Scientific > peer-review

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

Hyppönen, J., Hakala, A., Annala, K., Zhang, H., Peltola, J., Mervaala, E. & Kälviäinen, R., 1 Mar 2020, In : Seizure. 76, p. 72-78 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Deep audio-visual saliency: Baseline model and data

Tavakoli, H. R., Borji, A., Kannala, J. & Rahtu, E., 6 Feb 2020, *Proceedings ETRA 2020 Short Papers - ACM Symposium on Eye Tracking Research and Applications, ETRA 2020*. Spencer, S. N. (ed.). ACM, 3

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A Computational Model of Interactions Between Neuronal and Astrocytic Networks: The Role of Astrocytes in the Stability of the Neuronal Firing Rate

Lenk, K., Satuvuori, E., Lallouette, J., Ladrón-de-Guevara, A., Berry, H. & Hyttinen, J. A. K., 22 Jan 2020, In : Frontiers in Computational Neuroscience. 13, 19 p., 92.

Research output: Contribution to journal > Article > Scientific > peer-review

Membrane-Dependent Binding and Entry Mechanism of Dopamine into Its Receptor

Lolicato, F., Juhola, H., Zak, A., Postila, P. A., Saukko, A., Rissanen, S., Enkavi, G., Vattulainen, I., Kepczynski, M. & Róg, T., 2020, In : ACS Chemical Neuroscience. 11, 13, p. 1914–1924 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Randomized Multiresolution Scanning in Focal and Fast E/MEG Sensing of Brain Activity with a Variable Depth

Rezaei, A., Koulouri, A. & Pursiainen, S., 2020, In : Brain Topography. 33, 2, p. 161-175 15 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Tidal breathing flow profiles during sleep in wheezing children measured by impedance pneumography

Gracia-Tabuenca, J., Seppä, V-P., Jauhiainen, M., Paassilta, M., Viik, J. & Karjalainen, J., 2020, In : Respiratory Physiology and Neurobiology. 271, 103312.

Research output: Contribution to journal > Article > Scientific > peer-review

Unique Features of Network Bursts Emerge From the Complex Interplay of Excitatory and Inhibitory Receptors in Rat Neocortical Networks

Teppola, H., Aćimović, J. & Linne, M. L., 6 Sep 2019, In : FRONTIERS IN CELLULAR NEUROSCIENCE. 13, 377.

Research output: Contribution to journal > Article > Scientific > peer-review

Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions

Javanainen, M., Enkavi, G., Guixà-González, R., Kulig, W., Martinez-Seara, H., Levental, I. & Vattulainen, I., 1 May 2019, In : PLoS Computational Biology. 15, 5, e1007033.

Research output: Contribution to journal > Article > Scientific > peer-review

Viability of Mouse Retinal Explant Cultures Assessed by Preservation of Functionality and Morphology

Alarautalahti, V., Ragauskas, S., Hakkarainen, J. J., Uusitalo-Järvinen, H., Uusitalo, H., Hyttinen, J., Kalesnykas, G. & Nymark, S., 1 May 2019, In : *Investigative ophthalmology & visual science*. 60, 6, p. 1914-1927 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Improved EEG source localization with Bayesian uncertainty modelling of unknown skull conductivity

Rimpiläinen, V., Koulouri, A., Lucka, F., Kaipio, J. P. & Wolters, C. H., 1 Mar 2019, In : *NeuroImage*. 188, p. 252-260 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Diffusion tensor imaging and disability progression in multiple sclerosis: A 4-year follow-up study

Kolasa, M., Hakulinen, U., Brander, A., Hagman, S., Dastidar, P., Elovaara, I. & Sumelahti, M-L., Jan 2019, In : *Brain and Behavior*. 9, 1, e01194.

Research output: Contribution to journal › Article › Scientific › peer-review

Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis

Ylä-Outinen, L., Tanskanen, J. M. A., Kapucu, F. E., Hyysalo, A., Hyttinen, J. A. K. & Narkilahti, S., 2019, *In Vitro Neuronal Networks: From Culturing Methods to Neuro-Technological Applications*. Springer New York LLC, p. 299-329 31 p. (Advances in Neurobiology; vol. 22).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

A realistic, accurate and fast source modeling approach for the EEG forward problem

Miinalainen, T., Rezaei, A., Us, D., Nüßing, A., Engwer, C., Wolters, C. H. & Pursiainen, S., 2019, In : *NeuroImage*. 184, 1, p. 56-67 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Astrocyte lineage cells are essential for functional neuronal differentiation and synapse maturation in human iPSC-derived neural networks

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Research output: Contribution to journal › Article › Scientific › peer-review

Overview of Sources and Characteristics of Nanoparticles in Urban Traffic-Influenced Areas

Rönkkö, T. & Timonen, H., 2019, In : *Journal of Alzheimer's Disease*. 72, 1, p. 15-28 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Teaching semantics and skills for human-robot collaboration

Angleraud, A., Houbre, Q. & Pieters, R., 2019, In : *Paladyn*. 10, 1, p. 318-329 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Zeffiro User Interface for Electromagnetic Brain Imaging: a GPU Accelerated FEM Tool for Forward and Inverse Computations in Matlab

He, Q., Rezaei, A. & Pursiainen, S., 2019, In : *Neuroinformatics*. 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Cognitive load and metacognitive confidence extraction from pupillary response

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Research output: Contribution to journal › Article › Scientific › peer-review

Human-robot interactive learning architecture using ontologies and symbol manipulation

Angleraud, A., Houbre, Q., Kyrki, V. & Pieters, R., 6 Nov 2018, *RO-MAN 2018 - 27th IEEE International Symposium on Robot and Human Interactive Communication: August 27-31, 2018, Nanjing, China..* IEEE, p. 384-389 6 p. (IEEE RO-MAN).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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?

Acimovic, J., Teppola, H., Mäki-Marttunen, T. M. & Linne, M-L., 29 Oct 2018, In : BMC Neuroscience. 19, Suppl 2, p. 68-69 1 p.

Research output: Contribution to journal › Meeting Abstract › Scientific › peer-review

Improvement of computational efficiency of a biochemical plasticity model

Lehtimäki, M., Paunonen, L. & Linne, M-L., 29 Sep 2018, In : BMC Neuroscience. 19, Suppl 2, p. 66-66 P130.

Research output: Contribution to journal › Meeting Abstract › Scientific › peer-review

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?

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Research output: Other conference contribution › Paper, poster or abstract › Scientific

Assessment of mutation probabilities of KRAS G12 missense mutants and their long-timescale dynamics by atomistic molecular simulations and Markov state modeling

Pantsar, T., Rissanen, S., Dauch, D., Laitinen, T., Vattulainen, I. & Poso, A., 10 Sep 2018, In : PLoS Computational Biology. 14, 9, e1006458.

Research output: Contribution to journal › Article › Scientific › peer-review

Improving efficiency in convolutional neural networks with multilinear filters

Tran, D. T., Iosifidis, A. & Gabbouj, M., 1 Sep 2018, In : Neural Networks. 105, p. 328-339 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Negatively Charged Gangliosides Promote Membrane Association of Amphipathic Neurotransmitters

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Research output: Contribution to journal › Article › Scientific › peer-review

Epileptiform and periodic EEG activities induced by rapid sevoflurane anaesthesia induction

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Research output: Contribution to journal › Article › Scientific › peer-review

Nonlinear recurrent neural networks for finite-time solution of general time-varying linear matrix equations

Xiao, L., Liao, B., Li, S. & Chen, K., Feb 2018, In : Neural Networks. 98, p. 102-113 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

A Primal Neural Network for Online Equality-Constrained Quadratic Programming

Chen, K. & Zhang, Z., 2018, In : Cognitive Computation. 10, 2, p. 381-388 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

From in silico astrocyte cell models to neuron-astrocyte network models: A review

Oschmann, F., Berry, H., Obermayer, K. & Lenk, K., 2018, In : BRAIN RESEARCH BULLETIN. 136, p. 76-84

Research output: Contribution to journal › Review Article › Scientific › peer-review

Concerted regulation of npc2 binding to endosomal/lysosomal membranes by bis(monoacylglycerol)phosphate and sphingomyelin

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Research output: Contribution to journal › Article › Scientific › peer-review

Meas a novel metric for measuring the intelligence of a swarm of cooperating agents

Iantovics, L. B., Emmert-Streib, F. & Arik, S., 1 Oct 2017, In : Cognitive Systems Research. 45, p. 17-29 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Inhibition of A β Amyloid Growth and Toxicity by Silybins: The Crucial Role of Stereochemistry

Sciacca, M. F. M., Romanucci, V., Zarrelli, A., Monaco, I., Lolicato, F., Spinella, N., Galati, C., Grasso, G., D'Urso, L., Romeo, M., Diomede, L., Salmona, M., Bongiorno, C., Di Fabio, G., La Rosa, C. & Milardi, D., 16 Aug 2017, In : ACS Chemical Neuroscience. 8, 8, p. 1767-1778 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Measures of spike train synchrony for data with multiple time scales

Satuvuori, E., Mulansky, M., Bozanic, N., Malvestio, I., Zeldenrust, F., Lenk, K. & Kreuz, T., 1 Aug 2017, In : Journal of Neuroscience Methods. 287, p. 25-38 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Atomistic fingerprint of hyaluronan-CD44 binding

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Research output: Contribution to journal > Article > Scientific > peer-review

Calcium Assists Dopamine Release by Preventing Aggregation on the Inner Leaflet of Presynaptic Vesicles

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Research output: Contribution to journal > Article > Scientific > peer-review

CNN-based edge filtering for object proposals

Waris, M. A., Iosifidis, A. & Gabbouj, M., 2 Jun 2017, In : Neurocomputing. 266, p. 631-640

Research output: Contribution to journal > Article > Scientific > peer-review

Network-wide adaptive burst detection depicts neuronal activity with improved accuracy

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Cell culture chamber with gas supply for prolonged recording of human neuronal cells on microelectrode array

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Research output: Contribution to journal > Article > Scientific > peer-review

Advanced boundary electrode modeling for tES and parallel tES/EEG

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Research output: Contribution to journal > Article > Scientific > peer-review

Predicting symptom severity in autism spectrum disorder based on cortical thickness measures in agglomerative data

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

The relationship between recognition memory for emotion-laden words and white matter microstructure in normal older individuals

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Research output: Contribution to journal › Article › Scientific › peer-review

Automatic objective thresholding to detect neuronal action potentials

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Effect of rhodopsin phosphorylation on dark adaptation in mouse rods

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Research output: Contribution to journal › Article › Scientific › peer-review

Comparison of Feature Selection Techniques in Machine Learning for Anatomical Brain MRI in Dementia

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Research output: Contribution to journal › Article › Scientific › peer-review

How Many Is Enough? Effect of Sample Size in Inter-Subject Correlation Analysis of fMRI

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Research output: Contribution to journal › Article › Scientific › peer-review

Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol

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Research output: Contribution to journal › Article › Scientific › peer-review

One-Class Classification based on Extreme Learning and Geometric Class Information

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific

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Kivekäs, I., Pöyhönen, L., Aarnisalo, A., Rautiainen, M. & Poe, D., 1 Dec 2015, In : *OTOLOGY AND NEUROTOLOGY*. 36, 10, p. 1748-1752 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Severe cerebral white matter lesions in ischemic stroke patients are associated with less time spent at home and early institutionalization

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Research output: Contribution to journal › Article › Scientific › peer-review

Elevated levels of soluble CD26 and CD30 in multiple sclerosis

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Research output: Contribution to journal › Article › Scientific › peer-review

Human anterior thalamic nuclei are involved in emotion-attention interaction

Sun, L., Peräkylä, J., Polvivaara, M., Öhman, J., Peltola, J., Lehtimäki, K., Huhtala, H. & Hartikainen, K. M., 1 Nov 2015, In : *NEUROPSYCHOLOGIA*. 78, p. 88-94 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Building new computational models to support health behavior change and maintenance: new opportunities in behavioral research

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Research output: Contribution to journal > Article > Scientific > peer-review

DropELM: Fast neural network regularization with Dropout and DropConnect

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Evaluation of the different sleep-disordered breathing patterns of the compressed tracheal sound

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Research output: Contribution to journal > Article > Scientific > peer-review

X-ray microtomographic confirmation of the reliability of CBCT in identifying the scalar location of cochlear implant electrode after round window insertion

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Research output: Contribution to journal > Article > Scientific > peer-review

Association between soluble L-selectin and anti-JCV antibodies in natalizumab-treated relapsing-remitting MS patients

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Research output: Contribution to journal > Article > Scientific > peer-review

The effects of neuron morphology on graph theoretic measures of network connectivity: The analysis of a two-level statistical model

Acimovic, J., Mäki-Marttunen, T. & Linne, M-L., 10 Jun 2015, In : *Frontiers in Neuroanatomy*. 9, June, 76.

Research output: Contribution to journal > Article > Scientific > peer-review

Experiments of the sonification of the sleep electroencephalogram

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Research output: Contribution to journal > Article > Scientific > peer-review

Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway

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Research output: Contribution to journal > Article > Scientific > peer-review

Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge

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Sørensen, L., Nielsen, M., Tangaro, S., Inglese, P., Wachinger, C., Reuter, M., van Swieten, J. C., Niessen, W. J. & Klein, S., 1 May 2015, In : *NeuroImage*. 111, p. 562-579 18 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Analysis of apoptosis-related genes in patients with clinically isolated syndrome and their association with conversion to multiple sclerosis

Hagman, S., Kolasa, M., Basnyat, P., Helminen, M., Kähönen, M., Dastidar, P., Lehtimäki, T. & Elovaara, I., 15 Mar 2015, In : *JOURNAL OF NEUROIMMUNOLOGY*. 280, p. 43-48 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

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

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Research output: Contribution to journal > Article > Scientific > peer-review

Effects of cytokine activation and oxidative stress on the function of the human embryonic stem cell-derived retinal pigment epithelial cells

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Research output: Contribution to journal > Article > Scientific > peer-review

Extreme learning machine based supervised subspace learning

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Research output: Contribution to journal > Article > Scientific > peer-review

Patient-specific induced pluripotent stem cell-derived RPE cells: Understanding the pathogenesis of retinopathy in long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency

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Research output: Contribution to journal > Article > Scientific > peer-review

Regularized extreme learning machine for multi-view semi-supervised action recognition

Iosifidis, A., Tefas, A. & Pitas, I., 5 Dec 2014, In : *Neurocomputing*. 145, p. 250-262 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Autoimmunity-related immunological serum markers and survival in a tertiary care cohort of adult patients with epilepsy

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Research output: Contribution to journal > Article > Scientific > peer-review

Immediate effects of deep brain stimulation of anterior thalamic nuclei on executive functions and emotion-attention interaction in humans

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Research output: Contribution to journal > Article > Scientific > peer-review

Comparison of stapedotomy minus prosthesis, circumferential stapes mobilization, and small fenestra stapedotomy for stapes fixation

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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