

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

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., 20 Sep 2018.

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

Neural networks, cell cultures and some older work on data analysis.

Acimovic, J., 15 Jun 2009.

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

Effects of local structure of neuronal networks on spiking activity in silico

Mäki-Marttunen, T. M., Acimovic, J., Ruuhonen, K. P. & Linne, M-L., 18 Jul 2011, *Twentieth Annual Computational Neuroscience Meeting: CNS*2011*. Fellous, J-M. & Prinz, A. (eds.). Stockholm: BioMed Central, Vol. 12 (Suppl 1). p. P202 1 p.

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

Influences of digital band-pass filtering on the BCG waveform

Koivuluoma, M., Barna, L., Koivistoinen, T., Kööbi, T. & Värri, A., 13 Nov 2008, *BIOSIGNALS 2008 - Proceedings of the 1st International Conference on Bio-inspired Systems and Signal Processing*. p. 84-89 6 p.

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

Guest Editorial Special Issue on Multimedia Big Data in Internet of Things

Ma, H., Yu, S., Gabbouj, M. & Mueller, P., Oct 2018, In : IEEE Internet of Things Journal. 5, 5, p. 3405-3407 3 p., 8534720.

Research output: Contribution to journal › Editorial › Scientific

Guest Editorial: Implementation Issues in System-on-Chip

Ellervee, P. & Nurmi, J., 1 Jun 2017, In : Journal of Signal Processing Systems. 87, 3, p. 269-270 2 p.

Research output: Contribution to journal › Editorial › Scientific

Introduction to the Special Section on Sound Scene and Event Analysis

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Research output: Contribution to journal › Article › Scientific

Guest editorial special issue on the internet of nano things

Balasubramaniam, S., Jornet, J. M., Pierobon, M. & Koucheryavy, Y., 1 Feb 2016, In : IEEE Internet of Things Journal. 3, 1, p. 1-3 3 p.

Research output: Contribution to journal › Article › Scientific

Radio-based Sensing and Indoor Mapping with Millimeter-Wave 5G NR Signals

Barneto, C. B., Riihonen, T., Turunen, M., Koivisto, M., Talvitie, J. & Valkama, M., Jun 2020, *2020 International Conference on Localization and GNSS, ICL-GNSS 2020 - Proceedings*. Nurmi, J., Lohan, E-S., Torres-Sospedra, J., Kuusniemi, H. & Ometov, A. (eds.). IEEE, 5 p. (2020 International Conference on Localization and GNSS, ICL-GNSS 2020 - Proceedings).

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

Positioning Based on Noise-Limited Censored Path Loss Data

Karttunen, A., Valkama, M. & Talvitie, J., Jun 2020, *2020 International Conference on Localization and GNSS, ICL-GNSS 2020 - Proceedings*. Nurmi, J., Lohan, E-S., Torres-Sospedra, J., Kuusniemi, H. & Ometov, A. (eds.). IEEE, 6 p. (2020 International Conference on Localization and GNSS, ICL-GNSS 2020 - Proceedings).

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

Modeling and Mitigating 5G Wireless Downlink Interferences for Low-altitude Aerial vehicles

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

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

Adaptive Normalization for Forecasting Limit Order Book Data Using Convolutional Neural Networks

Passalis, N., Tefas, A., Kannianen, J., Gabbouj, M. & Iosifidis, A., 1 May 2020, *2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2020 - Proceedings*. IEEE, p. 1713-1717 5 p. (ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings; vol. 2020-May).

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

Peer to Peer Offloading with Delayed Feedback: An Adversary Bandit Approach

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

5G new radio evolution towards sub-THz communications

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

Protective Coating Methods for Glove-Integrated RFID Tags - A Preliminary Study

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

Headband Antenna for Wireless Power Transfer to Millimeter-Sized Neural Implants with Minimal Misalignment Effects

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

Circularly Polarized Corner-Truncated and Slotted Microstrip Patch Antenna on Textile Substrate for Wearable Passive UHF RFID Tags

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

Measurements of Reflection and Penetration Losses in Low Terahertz Band Vehicular Communications

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

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

Passive RFID-based Textile Touchpad

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

Constrained PSK: Energy-efficient modulation for Sub-THz systems

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

Reinforcement learning for improved UAV-based integrated access and backhaul operation

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

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

Prototyping directional UAV-based wireless access and backhaul systems

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

Optimized wake-up scheme with bounded delay for energy-efficient MTC

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

Gamified coding: Toy robots and playful learning in early education

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

V2X Connectivity: From LTE to Joint Millimeter Wave Vehicular Communications and Radar Sensing

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

Closed-Loop DPD for Digital MIMO Transmitters under Antenna Crosstalk

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

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Towards Algebraic Modeling of GPU Memory Access for Bank Conflict Mitigation

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

A perspective on wireless M-bus for smart electricity grids

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

User Experience Study of 360° Music Videos on Computer Monitor and Virtual Reality Goggles

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

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Time Difference of Arrival Estimation of Speech Signals Using Deep Neural Networks with Integrated Time-frequency Masking

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

Convex Energy Optimization of Streaming Applications for MPSoCs

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

Deep Reinforcement Learning for Financial Trading Using Price Trailing

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

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

Deep Temporal Logistic Bag-of-features for Forecasting High Frequency Limit Order Book Time Series

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

Random Forest Oriented Fast QTBT Frame Partitioning

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

Open framework for mammography-based breast cancer risk assessment

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Variance Preserving Initialization for Training Deep Neuromorphic Photonic Networks with Sinusoidal Activations

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

Automatic detection of water inside concrete slabs using ground penetrating radar

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

Exploiting Multipath Terahertz Communications for Physical Layer Security in beyond 5G Networks

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

Improved Session Continuity in 5G NR with Joint Use of Multi-Connectivity and Guard Bandwidth

Kovalchukov, R., Moltchanov, D., Begishev, V., Samuylov, A., Andreev, S., Koucheryavy, Y. & Samouylov, K., 20 Feb 2019, *2018 IEEE Global Communications Conference, GLOBECOM 2018*. IEEE

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

Energy Detection-Based Spectrum Sensing over Fisher-Snedecor F Fading Channels

Yoo, S. K., Cotton, S. L., Sofotasios, P. C., Muhaidat, S., Badarneh, O. S. & Karagiannidis, G. K., 20 Feb 2019, *2018 IEEE Global Communications Conference*. IEEE, 8647778

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

The Direction Cosine Matrix Algorithm in Fixed-point: Implementation and Analysis

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

Efficient Solving of Markov Decision Processes on GPUs Using Parallelized Sparse Matrices

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

An active learning method using clustering and committee-based sample selection for sound event classification

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

Time-frequency masking strategies for single-channel low-latency speech enhancement using neural networks

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

Deep neural network based speech separation optimizing an objective estimator of intelligibility for low latency applications

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

Multichannel NMF for source separation with ambisonic signals

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

Identification of Parkinson's Disease Utilizing a Single Self-recorded 20-step Walking Test Acquired by Smartphone's Inertial Measurement Unit

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

Eigen Posture Based Fall Risk Assessment System Using Kinect

Tripathy, S. R., Chakravarty, K. & Sinha, A., 26 Oct 2018, *40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2018*. IEEE, Vol. 2018-July. p. 1-4 4 p. 8513263

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

The Accuracy of Atrial Fibrillation Detection from Wrist Photoplethysmography. A Study on Post-Operative Patients

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

LoTTA: Energy-Efficient Processor for Always-on Applications

Multanen, J., Kultala, H., Jääskeläinen, P., Viitanen, T., Tervo, A. & Takala, J., Oct 2018, *2018 IEEE International Workshop on Signal Processing Systems (SiPS)*. IEEE

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

Estimation of time-varying room impulse responses of multiple sound sources from observed mixture and isolated source signals

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

Low-energy graph fourier basis functions span salient objects

Malik, J., Aytikin, C. & Gabbouj, M., 10 Sep 2018, *2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 2018-April. p. 1548-1552 5 p. 8462672
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Statistical Evaluation of Visual Quality Metrics for Image Denoising

Egiazarian, K., Ponomarenko, M., Lukin, V. & Ieremeiev, O., 10 Sep 2018, *2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 2018-April. p. 6752-6756 5 p. 8462294
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A joint target localization and classification framework for sensor networks

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

2D Video Coding of Volumetric Video Data

Schwarz, S., Hannuksela, M. M., Fakour-Sevom, V. & Sheikhi-Pour, N., 5 Sep 2018, *2018 Picture Coding Symposium, PCS 2018 - Proceedings*. IEEE, p. 61-65 5 p. 8456265
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

User Positioning in mmW 5G Networks Using Beam-RSRP Measurements and Kalman Filtering

Rastorgueva-Foi, E., Costa, M., Koivisto, M., Leppänen, K. & Valkama, M., 5 Sep 2018, *2018 21st International Conference on Information Fusion, FUSION 2018*. IEEE, p. 1150-1156 7 p. 8455289
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Inertial Odometry on Handheld Smartphones

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

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Parallel Digital Predistortion Design on Mobile GPU and Embedded Multicore CPU for Mobile Transmitters

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A software tool for studying the size and shape of human cardiomyocytes

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