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?

Data-driven study of synchronous popula on ac vity in generic spiking neuronal networks: How much do we capture using the minimal model for the considered phenomena?

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

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

Influences of digital band-pass filtering on the BCG waveform

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

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

Analog Mitigation of Frequency-Modulated Interference for Improved GNSS Reception

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

Peer to Peer Offloading with Delayed Feedback
An Adversary Bandit Approach

5G new radio evolution towards sub-THz communications

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

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

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

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

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Modellings and Measurements Using an Analogue Model

Passive RFID-based Textile Touchpad

Constrained PSK
Energy-efficient modulation for Sub-THz systems

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

Comparing capacity gains of static and UAV-based millimeter-wave relays in clustered deployments

Parametric exploration of cellular swelling in a computational model of cortical spreading depression

Prototyping directional UAV-based wireless access and backhaul systems

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

Gamified coding
Toy robots and playful learning in early education

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

Closed-Loop DPD for Digital MIMO Transmitters under Antenna Crosstalk

Fast fourier color constancy and grayness index for ISPA illumination estimation challenge

Towards Algebraic Modeling of GPU Memory Access for Bank Conflict Mitigation

A perspective on wireless M-bus for smart electricity grids

On the performance of narrow-band internet of things (NB-IoT) for delay-tolerant services

Input magnitude data setting in error-reduction algorithm for one-dimensional discrete phase retrieval problem

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

Low-latency Deep Clustering for Speech Separation

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

Convex Energy Optimization of Streaming Applications for MPSoCs

Deep Reinforcement Learning for Financial Trading Using Price Trailing

1-D Convolutional Neural Networks for Signal Processing Applications

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

Random Forest Oriented Fast QTBT Frame Partitioning

Open framework for mammography-based breast cancer risk assessment

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

Automatic detection of water inside concrete slabs using ground penetrating radar

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

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

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

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

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

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

Using sequential information in polyphonic sound event detection

Acoustic scene classification
An overview of dcase 2017 challenge entries

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

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

Multichannel NMF for source separation with ambisonic signals

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

Eigen Posture Based Fall Risk Assessment System Using Kinect

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

LoTTA: Energy-Efficient Processor for Always-on Applications

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

Low-energy graph fourier basis functions span salient objects

Statistical Evaluation of Visual Quality Metrics for Image Denoising

A joint target localization and classification framework for sensor networks

2D Video Coding of Volumetric Video Data

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

Inertial Odometry on Handheld Smartphones

Multi-source localization using a DOA Kernel based spatial covariance model and complex nonnegative matrix factorization

Anisotropic Spatiotemporal Regularization in Compressive Video Recovery by Adaptively Modeling the Residual Errors as Correlated Noise

Performance Evaluation of UAV-Assisted mmWave Operation in Mobility-Enabled Urban Deployments

Data Clustering Based on Community Structure in Mutual k-Nearest Neighbor Graph

Improvement of GPS and BeiDou extended orbit predictions with CNNs

Role of the user in information systems development

Adjusting university education with workspace training and self-education

Full-duplex radio technology for simultaneously detecting and preventing improvised explosive device activation

Sample-based regularization for support vector machine classification

Subaperture image segmentation for lossless compression

Deep multiresolution color constancy

360-Degree video streaming and its subjective quality

Model-based dynamic scheduling for multicore implementation of image processing systems

An optimized embedded target detection system using acoustic and seismic sensors

Full search equivalent fast block matching using orthonormal tree-structured haar transform

Lossless compression of high resolution disparity map images

Convergence analysis of error-reduction algorithm for solving of the extended one-dimensional discrete phase retrieval problem

Angular wall loss model and Extended Building Penetration model for outdoor to indoor propagation

Analysis of multipath propagation for 5G system at higher frequencies in microcellular environment

Reduced-complexity digital predistortion for massive MIMO

A k-nearest neighbor multilabel ranking algorithm with application to content-based image retrieval

Inband full-duplex radio access system with self-backhauling
Transmit power minimization under QOS requirements

An accumulative fusion architecture for discriminating people and vehicles using acoustic and seismic signals

The variation of air and surface temperatures in London within a 1km grid using vehicle-transect and ASTER data

The Effect of Light Field Reconstruction and Angular Resolution Reduction on the Quality of Experience

HEVC-compliant viewport-adaptive streaming of stereoscopic panoramic video

Compact modeling and management of reconfiguration in digital channelizer implementation

Advanced architectures for self-interference cancellation in full-duplex radios
Algorithms and measurements

Low power design methodology for signal processing systems using lightweight dataflow techniques

Color-distribution similarity by information theoretic divergence for color images

Models of architecture
Reproducible efficiency evaluation for signal processing systems

Improved image quality in fast inpainting with omnidirectional filling

Automatic objective thresholding to detect neuronal action potentials

Supervised subspace learning based on deep randomized networks

On Renyi's entropy estimation with one-dimensional Gaussian kernels

Blind sub-Nyquist GNSS signal detection

Coordinating proactive social devices in a mobile cloud
Lessons learned and a way forward

On prediction of DCT-based denoising efficiency under spatially correlated noise conditions

BL-LDA
Bringing bigram to supervised topic model

Random Value Impulse Noise Removal Based on Most Similar Neighbors

Digital full-band linearization of wideband direct-conversion receiver for radar and communications applications

Innovative e-Tourism Services on Top of Geo2Tag LBS Platform

Accurate depth estimation from a sequence of monocular images supported by proprioceptive sensors

Computer vision aided navigation systems

OpenCL Programmable Exposed Datapath High Performance Low-Power Image Signal Processor

BM3D image denoising using heterogeneous computing platforms

Whole-cell morphological properties of neurons constrain the nonrandom features of network connectivity

Programming graphics processing units in the RVC-CAL dataflow language

Cosparse dictionary learning for the orthogonal case

The effect of region of interest size on textural parameters

MOBILE3DTV
Content delivery optimization over DVB-H system

The extended one-dimensional discrete phase retrieval problem

Enhancing class discrimination in Kernel Discriminant Analysis

Exploiting subclass information in one-class support vector machine for video summarization

Low-complexity robust DOA estimation

Similarity induced group sparsity for non-negative matrix factorisation

Collaborative filtering based on group coordinates for smoothing and directional sharpening

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A flexible hybrid printed RF energy harvester utilizing catalyst-based copper printing technologies for far-field RF energy harvesting applications

3D/inkjet-printed origami antennas for multi-direction RF harvesting

Additively manufactured multilayer high performance RF passive components on cellulose substrates for internet-of-things electronic circuits

Lossy-to-lossless progressive coding of depth-maps

Partial expansion of dataflow graphs for resource-aware scheduling of multicore signal processing systems

Lossless compression of regions-of-interest from retinal images

Classification of iPSC colony images using hierarchical strategies with support vector machines

Human action recognition in stereoscopic videos based on bag of features and disparity pyramids

GPU parallel implementation of the approximate K-SVD algorithm using OpenCL

Radar micro-Doppler feature extraction using the Singular Value Decomposition

Compressed video quality assessment with modified MSE

Just-in-time scheduling techniques for multicore signal processing systems

Data flow algorithms for processors with vector extensions
Handling actors with internal state

Dynamic, data-driven spectrum management in cognitive small cell networks

The lord of the sense
A privacy preserving reputation system for participatory sensing applications

On application of rational Discrete Short Time Fourier Transform in epileptic seizure classification

An Unsupervised Audio Segmentation Method Using Bayesian Information Criterion

Minimum Variance Extreme Learning Machine for human action recognition

Impact of received signal on self-interference channel estimation and achievable rates in in-band full-duplex transceivers

Programmable lowpower implementation of the HEVC Adaptive Loop Filter

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On the effect of network structure and synaptic mechanisms on sustained bursting activity

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Multiplicative update for fast optimization of information retrieval based neighbor embedding

An image guided treatment platform for prostate cancer photodynamic therapy

DBComposer
An R package for integrative analysis and management of gene expression microarray data

An efficient GPU implementation of an arbitrary resampling polyphase channelizer

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High-performance programs by source-level merging of RVC-CAL dataflow actors

Parameterized core functional dataflow graphs and their application to design and implementation of wireless communication systems

A system-level design approach for dynamic resource coordination and energy optimization in sensor network platforms

Programmable implementation of zero-crossing demodulator on an application specific processor

Efficient optimization for data visualization as an information retrieval task

Multidimensional dataflow graph modeling and mapping for efficient GPU implementation

Application-specific instruction processor for extracting local binary patterns

Systematic integration of flowgraph- and module-level parallelism in implementation of DSP applications on multiprocessor systems-on-chip

GPU-based acceleration of symbol timing recovery

NT-SIM
A co-simulator for networked signal processing applications

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Emergence of global and local structural features during development of neuronal networks

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Automatic synthesis of TTA processor networks from RVC-CAL dataflow programs

Vectorization and mapping of software defined radio applications on heterogeneous multi-processor platforms

Blind estimation of mixed noise parameters in images using robust regression curve fitting

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Modeling and optimization of dynamic signal processing in resource-aware sensor networks

Scheduling of CAL actor networks based on dynamic code analysis

On delay distribution in IEEE 802.11 wireless networks

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Computational tools for assessing the properties of 2D neural cell cultures

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Gaussian mixture models for signal mapping and positioning

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Effects of waveforms on movement intensity and ratings of discomfort

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Computer Vision Methods for Vehicle Type, Make and Model Classification

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Deep Learning for Audio Signal Processing

Convolutional low-resolution fine-grained classification

ALMARVI System Solution for Image and Video Processing in Healthcare, Surveillance and Mobile Applications

Video coding of dynamic 3D point cloud data

Digital Predistortion for 5G Small Cell
GPU Implementation and RF Measurements

Cascade of Boolean detector combinations

Toward Efficient Execution of RVC-CAL Dataflow Programs on Multicore Platforms

Skew-t Filter and Smoother with Improved Covariance Matrix Approximation

Deep Learning Case Study for Automatic Bird Identification

Benchmark database for fine-grained image classification of benthic macroinvertebrates

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Detection and Classification of Acoustic Scenes and Events
Outcome of the DCASE 2016 Challenge

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Sparse Overcomplete Denoising
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Neighborhood Matching for Image Retrieval

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Data Flow Algorithms for Processors with Vector Extensions
Handling Actors With Internal State

On the existence of the solution for one-dimensional discrete phase retrieval problem

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

Implementation of a Multirate Resampler for Multi-carrier Systems on GPUs

Design Flow for GPU and Multicore Execution of Dynamic Dataflow Programs

A Hybrid Task Graph Scheduler for High Performance Image Processing Workflows

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Data Rate Assessment on L2–L3 CPU Bus and Bus between CPU and RAM in Modern CPUs

Adaptive tracking of people and vehicles using mobile platforms

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Blind Separation of Audio Mixtures Through Nonnegative Tensor Factorization of Modulation Spectrograms

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Nyström-based approximate kernel subspace learning

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Visual Voice Activity Detection in the Wild

Rotation Invariant Texture Description Using Symmetric Dense Microblock Difference

A Wideband Front-End Receiver Implementation on GPUs

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Online tests of Kalman filter consistency

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Instrumentation-Driven Validation of Dataflow Applications

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Efficiency of texture image filtering and its prediction

Unbiased Injection of Signal-Dependent Noise in Variance-Stabilized Range

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Generative part-based Gabor object detector

Binomial Gaussian mixture filter

A fast universal self-tuned sampler within Gibbs sampling

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A New Approach to Sign-Bit-Based Parameter Estimation in OFDM Receivers

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Entropy and Channel Capacity under Optimum Power and Rate Adaptation over Generalized Fading Conditions

Sparse extreme learning machine classifier exploiting intrinsic graphs

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Solutions to integrals involving the marcum Q-function and applications

Adaptive Randomized Coordinate Descent for Sparse Systems
Lasso and Greedy Algorithms

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On the kernel Extreme Learning Machine classifier

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Class-Specific Reference Discriminant Analysis With Application in Human Behavior Analysis

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Discriminant Bag of Words based representation for human action recognition

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Integration of dataflow-based heterogeneous multiprocessor scheduling techniques in GNU radio

Dynamic action recognition based on dynemes and Extreme Learning Machine

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Parameterized scheduling of topological patterns in signal processing dataflow graphs

Design and synthesis for multimedia systems using the targeted dataflow interchange format

Mapping parameterized cyclo-static dataflow graphs onto configurable hardware

Overview of the MPEG reconfigurable video coding framework

Quasi-static scheduling of CAL actor networks for reconfigurable video coding

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Exploiting statically schedulable regions in dataflow programs

Dimensionality reduction for data visualization

Topological patterns for scalable representation and analysis of dataflow graphs