

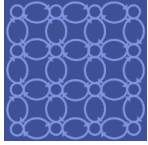
2013 IEEE International Workshop on Machine Learning for Signal Processing

(MLSP 2013)

**Southampton, United Kingdom
22-25 September 2013**



**IEEE Catalog Number: CFP13NNS-POD
ISBN: 978-1-4799-1179-0**



**2013 IEEE International Workshop on Machine Learning for Signal Processing
September 22-25, Southampton, United Kingdom**

Paper Index

[*Gaussian Process Clustering For The Functional Characterisation Of Vital-Sign Trajectories*](#)

Marco Af Pimentel, David A Clifton, Lionel Tarassenko

[*Gaussian Multiple Kernel Learning With Entropy Power Inequality*](#)

Hideitsu Hino

[*Mean Vector Component Analysis: A New Approach To Un-Centered PCA For Non-Negative Data*](#)

Robert Jenssen

[*A Dictionary-Learning Sparse Representation Framework For Pose Classification*](#)

Yuyao Zhang, Khalid Idrissi, Christophe Garcia

[*A Practical Test Set Bound For Rank Learning*](#)

Nathan Drenkow, Philippe Burlina, I-Jeng Wang, Daniel Dementhon, Craig Carmen

[*Cooperation Gain In Steady-State Performance Of Diffusion Adaptive Networks With Noisy Links*](#)

Azam Khalili, Amir Rastegarnia, Saeid Sanei, Wael Bazzi

[*Improved Comparative Partner Selection With Brood Recombination For Genetic Programming*](#)

Muhammad Waqar Aslam, Zhechen Zhu, Asoke K Nandi

[*K-Plane Clustering Algorithm For Analysis Dictionary Learning*](#)

Ye Zhang, Haolong Wang, Wenwu Wang, Saeid Sanei

[*Bounded Gaussian Process Regression*](#)

Bjørn S. Jensen, Jens B. Nielsen, Jan Larsen

[*A Proximal Method For The K-SVD Dictionary Learning*](#)

Guan-Ju Peng, Wen-Liang Hwang

[*Flash Flood Forecasting Using Support Vector Regression: An Event Clustering Based Approach*](#)

Khaled Boukharouba, Pierre Roussel, Gérard Dreyfus, Anne Johannet

[*A Review Of Kernels On Covariance Matrices For BCI Applications*](#)

Florian Yger

[*Robust Kernel-Based Regression Using Orthogonal Matching Pursuit*](#)

George Papageorgiou, Pantelis Bouboulis, Sergios Theodoridis

[*Online Anomaly Detection With An Incremental Centred Kernel Hypersphere*](#)

Colin O'reilly, Alex Gluhak, Muhammad Imran

[*Complex Support Vector Machines For Quaternary Classification*](#)

P. Bouboulis, E. Theodoridou, S. Theodoridis

[*A New Information Theoretic Clustering Algorithm Using K-NN*](#)

Vidar Vikjord, Robert Jenssen

[*Learning Overcomplete Dictionaries Based On Parallel Atom-Updating*](#)

Mostafa Sadeghi, Massoud Babaie-Zadeh, Christian Jutten

[*Novelty Detection Under Multi-Label Multi-Instance Framework*](#)

Qi Lou, Raviv Raich, Forrest Briggs, Xiaoli Z. Fern

[*Multiplicative Update For Fast Optimization Of Information Retrieval Based Neighbor Embedding*](#)

Jaakko Peltonen, Ziyuan Lin

[*Enhanced Smart Framework For Gene Clustering Using Successive Processing*](#)

Rui Fa, Basel Abu-Jamous, David J. Roberts, Asoke K. Nandi

[*Joint Spatial And Spectral Filter Estimation For Single Trial Detection Of Event Related Potentials*](#)

Foad Ghaderi

[*Classification Of Vocal Fold Nodules And Cysts Based On Vascular Defects Of Vocal Folds*](#)

H. Irem Turkmen, M. Elif Karşigil, Ismail Kocak

[*Model-Free Optimal De-Drifting And Enhanced Detection In FMRI Data*](#)

Adnan Shah, Abd-Krim Seghouane

[*Adapted Geometric Semantic Genetic Programming For Diabetes And Breast Cancer Classification*](#)

Zhechen Zhu, Asoke K. Nandi, Muhammad Waqar Aslam

[*Detection Of Intention Level In Response To Task Difficulty From EEG Signals*](#)

Ela Koyas, Elif Hocaoglu, Volkan Patoglu, Mujdat Cetin

[*Lbp Based On Multi Wavelet Sub-Bands Feature Extraction Used For Face Recognition*](#)

Rasber D. Rashid, Sabah A. Jassim, Harin Sellahewa

[*Texton Based Diagnosis Of Alzheimer's Disease*](#)

Pedro Morgado, Margarida Silveira, Durval Campos Costa, Alzheimer's Disease Neuroimaging Initiative

[*Using Adaptive Encryption Based Genetic Algorithms For Medical Images*](#)

Ahmed Mahmood, Robert Dony, Shawki Areibi

[*Diffusions MAP For Clustering FMRI Spatial MAP Extracted By Independent Component Analysis*](#)

Tuomo Sipola, Fengyu Cong, Tapani Ristaniemi, Vinoo Alluri, Petri Toiviainen, Elvira Brattico, Asoke K. Nandi

[*Segmentation Of Medical Images Based On Hierarchical Evolutionary And Bee Algorithms*](#)

Hamed Azami, Milad Azarbad, Saeid Sanei

[*The 9th Annual MLSP Competition*](#)

Yonghong Huang Forrest Briggs, Raviv Raich, Konstantinos Eftaxias, Zhong Lei

[*The 9th Annual MLSP Competition: First Place*](#)

Gábor Fodor

[*The 9th Annual MLSP Competition: Second Place*](#)

Hong Wei Ng, Thi Ngoc Tho Nguyen

[The 9th Annual MLSP Competition: New Methods For Acoustic Classification Of Multiple Simultaneous Bird Species In a Noisy Environment](#)

Forrest Briggs, Yonghong Huang, Raviv Raich, Konstantinos Eftaxias, Zhong Lei, William Cukierski, Sarah Frey Hadley, Adam Hadley, Matthew Betts, Xiaoli Z. Fern, Jed Irvine, Lawrence Neal, Anil Thomas, Gábor Fodor, Grigorios Tsoumakas, Hong Wei Ng, Thi Ngoc Tho Nguyen, Heikki Huttunen, Pekka Ruusuvuori, Tapio Manninen, Aleksandr Diment, Tuomas Virtanen, Julien Marzat, Joseph Defretin, Dave Callender, Chris Hurlburt, Ken Larrey, Maxim Milakov

[Non-Linear Noise Adaptive Kalman Filtering Via Variational Bayes](#)

Simo Särkkä, Jouni Hartikainen

[The Effect Of Missing Data On Robust Bayesian Spectral Analysis](#)

Jacqueline Christmas

[Bayesian Error Estimation And Model Selection In Sparse Logistic Regression](#)

Heikki Huttunen, Tapio Manninen, Jussi Tohka

[Blocked Gibbs Sampling Based Multi-Scale Mixture Model For Speaker Clustering On Noisy Data](#)

Naohiro Tawara, Tetsuji Ogawa, Shinji Watanabe, Atsushi Nakamura, Tetsunori Kobayashi

[Learning The Solution Sparsity Of An Ill-Posed Linear Inverse Problem With The Variational Garrote](#)

Michael Riis Andersen, Sofie Therese Hansen, Lars Kai Hansen

[Robust Arabic Speaker Verification System Using Lsf Extracted From The G.729 Bitstream](#)

Kawthar Yasmine Zergat, Abderrahmane Amrouche, Meriem Fedila, Mohamed Debyeche

[Robustness Enhancement Of Distribution Based Binary Discriminative Features For Modulation Classification](#)

Zhechen Zhu, Asoke K. Nandi, Muhammad Waqar Aslam

[Text-Independent Mfccs Vectors Classification Improvement Using Local ICA](#)

Abdenebi Rouigueb, Salim Chitroub, Ahmed Bouridane

[Inter-Document Reference Detection As An Alternative To Full Text Semantic Analysis In Document Clustering](#)

Patrick De Mazière, Marc M. Van Hulle

[Voice Conversion For Arbitrary Speakers Using Articulatory-Movement To Vocal-Tract Parameter Mapping](#)

Narpendyah W. Ariwardhani, Yurie Iribe, Kouichi Katsurada, Tsuneo Nitta

[A Robotic Mobility Diversity Algorithm With Markovian Trajectory Planners](#)

Daniel Bonilla Licea, Des McLernon, Mounir Ghogho

[Non-Negative Durational HMM](#)

Jarle Bauck Hamar, Rama San, Doddipatla, Torbjørn Svendsen, Thippur Sreenivas

[Statistics Based Features For Unvoiced Sound Classification](#)

Sunit Sivasankaran, Kmm Prabhu

[Music Genre Classification Using Gaussian Process Models](#)

Konstantin Markov, Tomoko Matsui

[Efficient Recalibration Via Dynamic Matrix Completion](#)

Sofia Nikitaki, Grigorios Tsagkatakis, Panagiotis Tsakalides

[Informed Separation Of Spatial Images Of Stereo Music Recordings Using Second-Order Statistics](#)

Stanislaw Gorlow, Sylvain March,

[Structured Sparsity Using Backwards Elimination For Automatic Music Transcription](#)

Ken O'hanlon, Nicolas Keriven, Mark D. Plumbley

[Diffusion LMS Networks In The Presence Of Noisy Nodes: A Convergence Rate And MSD Analysis](#)

Amanda De Paula, Cristiano Panazio

[Visual Hull Reconstruction For Automated Primate Behavior Observation](#)

Nastaran Ghadar, Xikang Zhang, Kang Li, Guillaume Thibault, Alireza Bayesteh, Izhak Shafran, Deniz Erdogmus, Kris Coleman, Kathleen A. Grant

[Inducing Discrimination In Biologically Inspired Models Of Visual Scene Recognition](#)

Tayyaba Azim, Mahesan Niranjan

[Classification Based On Local Feature Selection Via Linear Programming](#)

Narges Armanfard, James P. Reilly

[Method For The Identification Of The Subsets Of Genes Specifically Consistently Co-Expressed In A Set Of Datasets](#)

Basel Abu-Jamous, Rui Fa, David J. Roberts, Asoke K. Nandi

[Ridge-Adjusted Slack Variable Optimization For Supervised Classification](#)

Yinan Yu, Konstantinos I. Diamantarab, Tomas Mckelvey, Sun-Yuan Kung

[Oct A-Scan Based Lung Tumor Tissue Classification With Bidirectional Long Short Term Memory Networks](#)

Sebastian Otte, Christoph Otte, Alexander Schlaefer, Lukas Wittig, Gereon Hüttmann, Daniel Drömann, Andreas Zell

[Covariate Shift Approach For Invariant Texture Classification](#)

Ali Hassan, Arslan Shaukat

[Moqt: Oversampling With A Parsimonious Mixture Of Gaussian Trees Model For Imbalanced Time-Series Classification](#)

John Zhen Fu Pang, Hong Cao, Vincent Yan Fu Tan

[Kriging-Based Estimation Of Time Derivatives Via FIR Filtering](#)

Julien Marzat, Hélène Piet-Lahanier, Eric Walter

[Steady-State And Transient Operation Discrimination By Variational Bayesian Gaussian Mixture Models](#)

Yu Zhang, Chris Bingham, Michael Gallimore, Jun Chen

[Large Scale Inference In The Infinite Relational Model: Gibbs Sampling Is Not Enough](#)

Kristoffer Jon Albers, Andreas Leon Aagard Moth, Morten Mørup, Mikkel N. Schmidt

[Modeling Bioprocess Scale-Up Utilizing Regularized Linear And Logistic Regression](#)

Muhammad Farhan, Antti Larjo, Olli Yli-Harja, Tommi Aho

[An Enhanced Initialization Method For Non-Negative Matrix Factorization](#)

Liyun Gong, Asoke K. Nandi

[Supervised Covariance Selection For Linear Discriminant Analysis](#)

Hideitsu Hino, Nima Reyhani

[*A Novel Heuristic Memetic Clustering Algorithm*](#)

B.G.W. Craenen, A.K. Nandi, T. Ristaniemi

[*Graph-Based Detection Of Shilling Attacks In Recommender Systems*](#)

Zhuo Zhang, Sanjeev R. Kulkarni

[*Inference Of Helicopter Airframe Condition*](#)

Waljinder S. Gill, Ian T. Nabney, Daniel Wells

[*Parameter Design Tradeoff Between Prediction Performance And Training Time For Ridge-SVM*](#)

Rasmus Rothe, Yinan Yu, S.Y. Kung

[*Compact Codebook Design For Visual Scene Recognition By Sequential Input Space Carving*](#)

B. Mayurathan, U. A. J. Piniyaarachchi, M. Niranjan

[*Informed Generalized Sidelobe Canceler Utilizing Sparsity Of Speech Signals*](#)

Jiri Malek, Zbynek Koldovsky, Sharon Gannot, Petr Tichavsky

[*Source Number Estimation Based On Clustering Of Speech Activity Sequences For Microphone Array Processing*](#)

Ingrid Jafari, Nobutaka Ito, Mehrez Souden, Shoko Araki, Tomohiro Nakatani

[*General Algorithms For Estimating Spectrogram And Transfer Functions Of Target Signal For Blind Suppression Of Diffuse Noise*](#)

Nobutaka Ito, Emmanuel Vincent, Nobutaka Ono, Shigeki Sagayama

[*Blind Separation Of Spatially-Block-Sparse Sources From Orthogonal Mixtures*](#)

Ofir Lindenbaum, Arie Yeredor, Ran Vitek, Moshe Mishali

[*Linear Process Mixture Model For Piecewise Stationary Multichannel Blind Deconvolution*](#)

Jason A. Palmer, Ken Kreutz-Delgado, Scott Makeig

[*Introducing A Simple Fusion Framework For Audio Source Separation*](#)

Xabier Jaureguiberry, Gaël Richard, Pierre Leveau, Romain Hennequin, Emmanuel Vincent

[*Simultaneous Noise Classification And Reduction Using A Priori Learned Models*](#)

Nasser Mohammadiha, Paris Smaragdis, Arne Leijon

[*A Quantum-Feedforward And Classical-Feedback Separating Structure Adapted With Monodirectional Measurements; Blind Qubit Uncoupling Capability And Links With ICA*](#)

Yannick Deville, Alain Deville

[*An Experimental Comparison Of Source Separation And Beamforming Techniques For Microphone Array Signal Enhancement*](#)

Joachim Thiemann, Emmanuel Vincent

[*Blind Separation Of Convolutional Mixtures Over Galois Fields*](#)

Denis G. Fantinato, Daniel G. Silva, Everton Z. Nadalin, Aline Neves, Jugurta Montalvão, Romis Attux, João M. T. Romano

[*Blind Identification And Separation Of Sources With Sparse Events*](#)

Bahador Makki Abadi, Saeid Sanei

[*The 2013 Signal Separation Evaluation Campaign*](#)

Nobutaka Ono, Zbynek Koldovsky, Shigeki Miyabe, Nobutaka Ito

[Supervised Single Channel Source Separation Of EEG Signals](#)

Samaneh Kouchaki, Saeid Sanei

[Non-Negative Matrix Factorization Using Weighted Beta Divergence And Equality Constraints For Industrial Source Apportionment](#)

Abdelhakim Limem, Gilles Delmaire, Matthieu Puigt, Gilles Roussel, Dominique Courcot

[Video-Informed Approach For Enhancing Audio Source Separation Through Noise Source Suppression](#)

Jack Harris, Bertrand, Rivet, Syed Mohsen Naqvi, Jonathon A. Chambers, Christian Jutten

[Orthogonal Segmented Model For Underdetermined Blind Identification And Separation Of Sources With Sparse Events](#)

Bahador Makki Abadi, Saeid Sanei

[A Constrained Approach For Extraction Of Pre-Ictal Discharges From Scalp EEG](#)

Shahzad Shapoori, Wenwu Wang, Saeid Sanei

[Learning Incoherent Subspaces For Classification Via Supervised Iterative Projections And Rotations](#)

Daniele Barchiesi, Mark D. Plumbley

[A Greedy Approach To Sparse Poisson Denoising](#)

François-Xavier Dupé, Sandrine Anthoine

[Fpga Prototype Of Machine Learning Analog-To-Feature Converter For Event-Based Succinct Representation Of Signals](#)

Sergio Martin Del Campo, Kim Albertsson, Joakim Nilsson, Jens Eliasson, Fredrik Sandin

[Sparse Coding With Anomaly Detection](#)

Amir Adler, Michael Elad, Yacov Hel-Or, Ehud Rivlin

[A Conjugate Gradient Algorithm For Blind Sensor Calibration In Sparse Recovery](#)

Hao Shen, Martin Kleinsteuber, Cagdas Bilen, Remi Gribonval

[Joint Canonical Polyadic Decomposition Of Two Tensors With One Shared Loading Matrix](#)

Xiao-Feng Gong, Ya-Na Hao, Qiu-Hua Lin

[Non-Negative Tensor Factorization For Single-Channel EEG Artifact Rejection](#)

Cécilia Damon, Antoine Liutkus, Alexandre Gramfort, Slim Essid

[Text-Informed Audio Source Separation Using Nonnegative Matrix Partial Co-Factorization](#)

Luc Le Magoarou, Alexey Ozerov, Ngoc Q. K. Duong

[Tensor Based Singular Spectrum Analysis For Nonstationary Source Separation](#)

Samaneh Kouchaki, Saeid Sanei

[Non-Negative Matrix Completion For Bandwidth Extension: A Convex Optimization Approach](#)

Dennis L. Sun, Rahul Mazumder

[Hierarchical Theme And Topic Model For Summarization](#)

Jen-Tzung Chien, Ying-Lan Chang

[Estimation Of Causal Structures In Longitudinal Data Using Non-Gaussianity](#)

Kento Kadowaki, Shohei Shimizu, Takashi Washio

[Acoustic Scene Analysis Based On Latent Acoustic Topic And Event Allocation](#)

Keisuke Imoto, Yasunori Ohishi, Hisashi Uematsu Hitoshi Ohmuro

Single Channel Source Separation Using Smooth Nonnegative Matrix Factorization With Markov Random Fields

Minje Kim, Paris Smaragdis