

# Technical Program

## 23PM1: Keynote speeches

Date: July 23 (Mon) 14:30–17:00,

Room: G (5th floor)

Chair: Tetsushi Ueta (Tokushima University)

[23PM1-1]	[Invited talk] Nonlinear models and methods for biometrics	1
	Maciej Ogorzalek (Jagiellonian University)	
[23PM1-2]	[Invited talk] Attractors in Circuit Dynamics — an elementary question on attractor design —	2
	Hiroshi Kawakami (Tokushima University)	

## 24AM1: Simulation

Date: July 24 (Tue) 09:00–10:30,

Room: G (5th floor)

Chair: (pending) ()

[24AM1-1]	[Invited talk] An Efficient and Practical Algorithm for Finding All DC Solutions of Nonlinear Circuits Using GLPK	3
	Kiyotaka Yamamura (Chuo University), Koki Suda (Chuo University)	

[24AM1-2]	Nonlinear Resistive Circuits for Maximum-Flow Problem	7
	Masatoshi Sato (Sophia University), Hisashi Aomori (Sophia University), Momoru Tanaka (Sophia University)	

[24AM1-3]	Comparisons between Spice-Oriented Harmonic Balance Method and Volterra Series Method	11
	Junji Kawata (Tokushima Bunri University), Takaaki Kinouchi (Tokushima University), Yoshihiro Yamagami (Tokushima University), Yoshifumi Nishio (Tokushima University), Akio Ushida (Tokushima Bunri University)	

[24AM1-4]	Sorter-Based Digital Wave Filters - An Approach to Nanoelectronic Signal Processing -	15
	Yoshinao Suzuki (Hiroshima City University), Hisato Fujisaka (Hiroshima City University),	

Takeshi Kamio (Hiroshima City University), Kazuhisa Haeiwa (Hiroshima City University)

## 24AM2: Coupled oscillators

Date: July 24 (Tue) 11:00–12:30,

Room: G (5th floor)

Chair: Danièle Fournier-Prunaret (INSA Toulouse)

**[24AM2-1] [Invited talk] Dynamics of a Large Population of Coupled Active and Inactive Oscillators**

19

Hiroaki Daido (Osaka Prefecture University)

**[24AM2-2] Multi-Phase Oscillation in CMOS LC Oscillators Coupled by Mutual Inductors**

23

Toshihiro Kawanari (University of Fukui), Seiichiro Moro (University of Fukui)

**[24AM2-3] Synchronization Phenomena on Asymmetrical Globally Coupled Chaotic Systems Using Circuits or Maps**

27

Yasuteru Hosokawa (Shikoku University), Yoshifumi Nishio (Tokushima University)

**[24AM2-4] Occurrence of chaos in networks of two-dimensional limit-cycle oscillators driven by noise in mean-field couplings**

31

Akihisa Ichiki (Tokyo Institute of Technology), Hideaki Ito (Tokyo Institute of Technology), Masatoshi Shiino (Tokyo Institute of Technology)

## 24PM1: Random graph

Date: July 24 (Tue) 14:00–14:30,

Room: G (5th floor)

Chair: Erik Lindberg (Technical University of Denmark)

**[24PM1-1] [Invited talk] Concept and comparison of Markov random graphs**

35

Ruedi Stoop (University and ETH of Zurich)

## 24PM2: Poster I

Date: July 24 (Tue) 14:30–16:00,

Room: B (2nd floor)

Chair: (pending)

**[24PM2-1] Formal Methods for Analyzing Dynamic of Random Circuits by Using Statistical Petri Net**

39

Meng Zhang (Northwestern Polytechnical University), Deyuan Gao (Northwestern Polytechnical University), Xiaoya Fan (Northwestern Polytechnical University)

**24PM2-2** **Gibbs measures and topologically conjugate transforms of network dynamics** 43

Syiji Miyazaki (Kyoto University)

**24PM2-3** **Generation and synchronization of chaos in Mackey-Glass electronic circuits with multiple time delays** 47

Masahiko Tateno (Takushoku University), Masahiko Kuraya (Takushoku University), Satoshi Sano (Takushoku University), Atsushi Uchida (Takushoku University), Shigeru Yoshimori (Takushoku University)

**24PM2-4** **The course of the SNR along the cochlear cascade of electronic Hopf amplifiers** 51

Stefan Martignoli (University and ETH of Zurich), Yoko Uwate (Tokushima University, University and ETH of Zurich), Ruedi Stoop (University and ETH of Zurich)

**24PM2-5** **An Improved Solution Construction Method with Solution Feedback for Quadratic Assignment Problems** 55

Akihiko Shirakuma (Tokyo Denki University), Yoshihiko Horio (Tokyo Denki University), Kazuyuki Aihara (University of Tokyo)

**24PM2-6** **On Scicos simulation of a hybrid dynamical system** 59

Hassane Bouzahir (University Ibn Zohr, Tokushima University), Fatima El Guezar (University Ibn Zohr, INSA Toulouse, Tokushima Univ), Tetsushi Ueta (Tokushima University)

**24PM2-7** **IC Implementation of One-Dimensional Discrete-Time Dynamical Systems Circuit Using Floating-Gate MOSFET** 63

Kenichi Kawamura (Tokyo Denki University), Yoshihiko Horio (Tokyo Denki University), Kazuyuki Aihara (University of Tokyo)

**24PM2-8** **Fractal light scattering in regular-polyhedral mirror-ball structures** 67

Kazuya Amano (Takushoku University), Daisuke Narimatsu (Takushoku University), Satoshi Sotome (Takushoku University), Shinya Tashiro (Takushoku University), Atsushi Uchida (Takushoku University), Shigeru Yoshimori (Takushoku University)

**24PM2-9** **CDMA Signal Estimation Based on Independent Component Analysis Followed by MV-PURE Estimator** 71

Tomasz Piotrowski (RIKEN, Tokyo Institute of Technology), Gen Hori (RIKEN), Ken Umeno (RIKEN), Isao Yamada (Tokyo Institute of Technology)

**24PM2-10** **Simulation of Neuronal Activity Using Recurrent Neural Network** 75

Masaaki Takahashi (Kyusyu Institute of Technology), Cai Youbo (Kyusyu Institute of Technology), Masumi Ishikawa (Kyusyu Institute of Technology), Kiyohisa Natsume (Kyusyu Institute of Technology)

**24PM2-11** **Emergence of Intricate Dynamical Response by Supercritical Parametrically Driven or Ringwise Coupled Subcritical Hopf Oscillators** 79

Yoko Uwate (Tokushima University, University and ETH of Zurich), Stefan Martignoli (Uni-

versity and ETH of Zurich), Yoshifumi Nishio (Tokushima University), Ruedi Stoop (University and ETH of Zurich)

<b>24PM2-12</b>	<b>Real-Time Sequence Generation Problem on One-Bit Inter-Cell-Communication Cellular Automata</b>	83
-----------------	--	----

Naoki Kamikawa (Osaka Electro-Communication University), Hiroshi Umeo (Osaka Electro-Communication University)

<b>24PM2-13</b>	<b>Bifurcation Structure of Capacitive Coupled BVP Oscillators</b>	87
-----------------	--	----

Yusuke Nishiuchi (Kochi National College of Technology), Tetsushi Ueta (Tokushima University), Hiroshi Kawakami (Tokushima University)

<b>24PM2-14</b>	<b>Chaos synchronization between Lorenz systems using two numerical integration methods</b>	91
-----------------	---	----

Georges Kaddoum (ENSEEIHT/INSA Toulouse), Danièle Fournier-Prunaret (INSA Toulouse), Pascal Chargé (INSA Toulouse), Daniel Roviras (ENSEEIHT Toulouse)

<b>24PM2-15</b>	<b>A Chaotic Cryptosystem Using Lyapunov Exponent</b>	95
-----------------	---	----

Shuichi Aono (Tokushima University), Yoshifumi Nishio (Tokushima University)

<b>24PM2-16</b>	<b>Dynamic Range Enhancement by Sigma-Delta Cellular Neural Network</b>	99
-----------------	---	----

Yuki Naito (Sophia University), Hisashi Aomori (Sophia University), Tsuyoshi Otake (Tama-gawa University), Nobuaki Takahashi (IBM Japan), Mamoru Tanaka (Sophia University)

<b>24PM2-17</b>	<b>Objects Extraction by Nonlinear Methods</b>	103
-----------------	--	-----

Shu-Sheng Hao (National Defense University), Chih-Bin Hsu (National Defense University), Rong-Fuh Hwu (National Defense University)

<b>24PM2-18</b>	<b>Appearance of Intrinsic Localized Mode in Three-Phase Circuit</b>	107
-----------------	--	-----

Takashi Hisakado (Kyoto University), Shohta Ukai (Kyoto University)

<b>24PM2-19</b>	<b>Message Passing in Neural Networks</b>	111
-----------------	---	-----

Thomas Ott (University and ETH of Zurich), Martin Schuele (University and ETH of Zurich), Ruedi Stoop (University and ETH of Zurich)

## 24PM3-1: Communications

Date: July 24 (Tue) 16:00–17:30,

Room: D (4th floor)

Chair: Chen He (Shanghai Jiaotong University)

<b>24PM3-1-1</b>	<b>New Secure Communication Model Using Anticipating Synchronization of Coupled Multidelay Feedback Systems</b>	115
------------------	---	-----

Thang Manh Hoang (Nagaoka University of Technology), Masahiro Nakagawa (Nagaoka University of Technology)

<b>24PM3-1-2</b>	<b>A HOS-based Blind Signal Extraction Approach for Chaotic MIMO Systems</b>	119
------------------	--	-----

Yunrui Gong (Shanghai Jiao Tong University), Di He (Shanghai Jiao Tong University), Chen He (Shanghai Jiao Tong University), Lingge Jiang (Shanghai Jiao Tong University)

<b>24PM3-1-3</b>	<b>Generating Complete Orthogonal Spreading Sequences by Equivariant Adaptive Separation via Independence for CDMA</b>	123
------------------	--	-----

Ryo Takahashi (RIKEN), Song-Ju Kim (NICT), Ken Umeno (RIKEN, NICT)

<b>24PM3-1-4</b>	<b>Fast Blind Adaptive Linear Receiver in Uplink DS/CDMA Systems by Quadratic-Metric Projection</b>	126
------------------	---	-----

Masahiro Yukawa (RIKEN), Gen Hori (RIKEN), Ken Umeno (RIKEN), Isao Yamada (Tokyo Institute of Technology)

<b>24PM3-1-5</b>	<b>Analysis of Quantization Noise for a N-tone Sigma-Delta Circuit using Time-Domain Based Interpolation and Decimation Structure in UWB-OFDM Transceiver</b>	130
------------------	---	-----

Jeich Mar (Yuan-Ze University), You Rong Lin (Yuan-Ze University)

## 24PM3-2: Nonlinear dynamics

Date: July 24 (Tue) 16:00–17:30,

Room: E (4th floor)

Chair: Takuji Kousaka (Oita University)

<b>24PM3-2-1</b>	<b>Spectro-Ratio on Multi-Threshold Time-Frequency Sub-Band for P-Wave Arrival Detection</b>	134
------------------	--	-----

Ali Gamal Hafez (Kyushu University), Tahir Abbas Khan (Kyushu University), Tohru Kohda (Kyushu University)

<b>24PM3-2-2</b>	<b>A simple open chaos generator based upon a sine map</b>	138
------------------	--	-----

Pascal Chargé (INSA Toulouse), Jie Xu (INSA Toulouse), Danièle Fournier-Prunaret (INSA Toulouse), Abdel-Kaddous Taha (INSA Toulouse)

<b>24PM3-2-3</b>	<b>A Pulse-Modulation Circuit for Nonlinear Systems with Self Regulatory Threshold Dynamics</b>	142
------------------	---	-----

Daiuske Atuti (Kyushu Institute of Technology), Takashi Morie (Kyushu Institute of Technology), Kazuyuki Aihara (University of Tokyo)

<b>24PM3-2-4</b>	<b>Synchronization in semiconductor lasers subject to a common chaotic drive signal</b>	146
------------------	---	-----

Isao Oowada (Takushoku University), Toru Yamamoto (Takushoku University), Hoipang Yip (Takushoku University), Atsushi Uchida (Takushoku University), Shigeru Yoshimori (Takushoku University), Kazuyuki Yoshimura (NTT), Jun Muramatsu (NTT), Shin-itiro Goto (NTT), Peter Davis (NTT)

<b>24PM3-2-5</b>	<b>A Fundamental Study of Redox Flow Battery based on Chemical Reaction Dynamics</b>	150
------------------	--	-----

Minghua Li (Kyoto University), Takashi Hikihara (Kyoto University)

## 25AM1: Neural oscillators

Date: July 25 (Wed) 09:00–10:30,

Room: G (5th floor)

Chair: Martin Hasler (EPFL)

<b>[25AM1-1]</b>	<b>[Invited talk] Spontaneous and Stimulus-Induced Patterns in Oscillatory Neuronal Networks</b>	154
------------------	--	-----

Vladimir Isaakovich Nekorkin (Russian Academy of Sciences)

<b>[25AM1-2]</b>	<b>Analysis of Digital Spiking Neuron for development of its learning algorithm</b>	157
------------------	---	-----

Hiroyuki Torikai (Osaka University)

<b>[25AM1-3]</b>	<b>Exact recalling of phase patterns in oscillatory neurons with random transmission delay</b>	161
------------------	--	-----

Tetsuya Yamamoto (Tokyo Metropolitan College of Industrial Tech.), Takashi Amemiya (Yokohama National University), Tomohiko Yamaguchi (AIST)

<b>[25AM1-4]</b>	<b>Analysis of Artificial Spiking Neuron with Triangular Signal</b>	165
------------------	---	-----

Toshimitsu Ohtani (Hosei University), Toshimichi Saito (Hosei University)

## 25AM2: Nonlinear circuits

Date: July 25 (Wed) 11:00–12:30,

Room: G (5th floor)

Chair: Yoshihiko Horio (Tokyo Denki University)

<b>[25AM2-1]</b>	<b>[Invited talk] Complex superstable periodic orbits of several 1-D maps embedded in circuits and systems</b>	169
------------------	--	-----

Toshimichi Saito (Hosei University), Yusuke Matsuoka (Hosei University), Yuki Ishikawa (Hosei University), Yasuhide Ishige (Hosei University)

<b>[25AM2-2]</b>	<b>Effect of Parameter Mismatch in Chaotic Circuits Coupled by a Time-Varying Resistor</b>	173
------------------	--	-----

Yoko Uwate (Tokushima University), Yoshifumi Nishio (Tokushima University)

<b>[25AM2-3]</b>	<b>The Common Multi-Vibrator Family</b>	177
------------------	---	-----

Erik Lindberg (Technical University of Denmark), K. Murali (Anna University), Arunas Tamasevicius (Semiconductor Physics Institute)

## 26AM1: Synchronization

Date: July 26 (Thu) 09:00–10:30,

Room: G (5th floor)

Chair: Albert Kern (ETH)

### 26AM1-1 [Invited talk] Synchronization in Complex Networks

181

Juergen Kurths (University of Potsdam), Gorka Zamora (University of Potsdam), Luica Zemanova (University of Potsdam), Changsong Zhou (University of Potsdam)

### 26AM1-2 Synchronization in star-coupled neuronal networks

183

Hiroyuki Kitajima (Kagawa University)

### 26AM1-3 Detecting Anomalous Phase Synchronization from Time Series

187

Isao Tokuda (JAIST), Syamal Kumar Dana (India Institute of Chemical Biology), Juergen Kurths (University of Potsdam)

### 26AM1-4 Phase control in nonlinear electronic circuit modeling oscillatory neurons

191

Dmitry Sergeevich Shapin (Russian Academy of Sciences)

## 26AM2: Bio/Medicals

Date: July 26 (Thu) 11:00–12:30,

Room: G (5th floor)

Chair: Rafal Zdunek (RIKEN)

### 26AM2-1 [Invited talk] Linear and Nonlinear Dynamics of Motor Nervous System in Human

194

Jun'ichi Ushiba (Keio University), Yoshihisa Msakado (Keio University)

### 26AM2-2 Two Process Model for Sleep-Wake Cycles in Infantile Autism

198

Hirotsune Matsuura (Kyushu Institute of Technology), Katsumi Tateno (Kyushu Institute of Technology), Shuji Aou (Kyushu Institute of Technology)

### 26AM2-3 Bifurcation Analysis of a Detailed Cardiac Cell Model and Drug Sensitivity of Ionic Channels

202

Rei Yamaguchi (Osaka University), Shinji Doi (Osaka University), Sadatoshi Kumagai (Osaka University)

### 26AM2-4 Consideration of the effect of anesthesia in the thalamocortical assemblies

206

Kumiko Oshima (Ecole Polytechnique Federale de Lausanne), Borja Ibarz (Universidad Rey Juan Carlos), Martin Hasler (Ecole Polytechnique Federale de Lausanne)

## 26PM1: Cellular neural networks

Date: July 26 (Thu) 14:00–14:30,

Room: G (5th floor)

Chair: Mamoru Tanaka (Sophia University)

**26PM1-1 [Invited talk] Designing Populations of Image Motion Selective Cellular Neural Networks** 210

Bertram E Shi (Hong Kong University of Science and Technology)

## 26PM2: Poster II

Date: July 26 (Thu) 14:30–16:00,

Room: B (2nd floor)

Chair: (pending) ()

**26PM2-1 Extension of The Optimal Unbiased Minimum-Variance Filter for Systems with Unknown Inputs** 214

Chien-Shu Hsieh (Ta Hwa Institute of Technology)

**26PM2-2 A Simple Iterative Algorithm for Image Interpolation by Radial Basis Function Networks** 218

Zhenxing Pan (Osaka University), Masato Senoo (Osaka University), Shinji Doi (Osaka University), Sadatoshi Kumagai (Osaka University)

**26PM2-3 Pulse Wave Propagation Phenomenon in a Ring of Coupled Hard-Type Oscillators** 222

Kuniyasu Shimizu (Meiji University), Tetsuro Endo (Meiji University), Daishin Ueyama (Meiji University)

**26PM2-4 Bifurcation Phenomena in an Iterative Optimization Process for Intensity Modulated Radiation Therapy** 226

Kenji Yamada (The University of Tokushima), Ken-ichi Fujimoto (The University of Tokushima), Tetsuya Yoshinaga (The University of Tokushima)

**26PM2-5 Statistical Analysis of Boolean Network Based on One-Dimensional Map-ping** 230

Nobumitsu Fujiwara (Osaka University), Shinji Doi (Osaka University), Sadatoshi Kumagai (Osaka University)

**26PM2-6 Experimental Observations from an Integrated Hysteresis Two-Port VCCS Chaotic Oscillator** 234

Takuya Hamada (Tokyo Denki University), Yoshihiko Horio (Tokyo Denki University), Kazuyuki Aihara (University of Tokyo)

**26PM2-7 Method of repellers detection by applied computation over basin of attraction** 238

Quentin Brandon (Tokushima University), Toshiyuki Kumano (Tokushima University),

Tetsushi Ueta (Tokushima University)

<b>26PM2-8</b> Roles of hubs in Boolean networks	242
Chikoo Oosawa (Kyushu Institute of Technology)	
<b>26PM2-9</b> Odd Number Property of Multiple Delayed Feedback Control	246
Keiji Konishi (Osaka Prefecture University), Hideki Kokame (Osaka Prefecture University)	
<b>26PM2-10</b> An Adaptive Friction Compensator Using Exponentially Modulated Fourier Neural Networks	250
Jeng-Tze Huang (Vanung University of Technology), Chiz-Chung Cheng (Lee-Ming Institute of Technology), Der-Cherng Liaw (National Chiao-Tung University)	
<b>26PM2-11</b> Synchronization of uni-directionally coupled class I and class II neurons	254
Eri Ioka (Kagawa University), Hiroyuki Kitajima (Kagawa University), Kunichika Tsumoto (ERATO/JST)	
<b>26PM2-12</b> Markov chain of binary sequences generated by A/D conversion using beta-encoder	258
Satoshi Hironaka (Kyushu University), Tohru Kohda (Kyushu University), Kazuyuki Aihara (Tokyo University)	
<b>26PM2-13</b> A Study of TBM Trajectory Prediction Using VSC-Based Observer Approach	262
Shih-Tse Chang (National Chiao Tung University), Chiz-Chung Cheng (Lee-Ming Institute of Technology), Chun-Hone Chen (Chung Shan Institute of Science and Technology), Yew-Wen Liang (National Chiao Tung University), Der-Cherng Liaw (National Chiao Tung University)	
<b>26PM2-14</b> Design of midcourse guidance laws for an antimissile	266
Chun-Hone Chen (Chung Shan Institute of Science and Technology), Chiz-Chung Cheng (Lee-Ming Institute of Technology), Yew-Wen Liang (National Chiao Tung University), Der-Cherng Liaw (National Chiao Tung University), Yi-Kang Chen (National Chiao Tung University)	
<b>26PM2-15</b> A dynamic controller with instantaneous state setting method for chaotic systems	270
Tadashi Tsubone (Nagaoka University of Technology), Yasuhiro Wada (Nagaoka University of Technology)	
<b>26PM2-16</b> Improvement of CDMA System using Signal Separation by Independent Component Analysis	274
Gen Hori (RIKEN), Ken Umeno (RIKEN), Masahiro Yukawa (RIKEN), Ryo Takahashi (RIKEN), Tomasz Piotrowski (RIKEN, Tokyo Institute of Technology)	
<b>26PM2-17</b> Bifurcation Analysis of Duffing-Rayleigh Equation	278
Masa'aki Mizumoto (Tokushima University), Tetsushi Ueta (Tokushima University), Takuji Kousaka (Oita University), Hiroshi Kawakami (Tokushima University)	
<b>26PM2-18</b> Nonlinear Modeling and Bifurcation Analysis of Buck Converter Dynamics	282

Chau-Chung Song (National Formosa University), Der-Cherng Liaw (National Chiao Tung University), Shih-Wen Chen (Chung Hua University)

**26PM2-19 Performance of the Amplitude Banded LMS Equalizer on Stationary Channels** 286

Tetsuya Shimamura (Saitama University)

**26PM2-20 A Study of Robust Spacecraft Attitude Control** 290

Chiz-Chung Cheng (Lee-Ming Institute of Technology), Yew-Wen Liang (Natiola Chiao Tung University), Sheng-Dong Xu (Natiola Chiao Tung University), Der-Cherng Liaw (Natiola Chiao Tung University)

## 26PM3-1: Neural networks

Date: July 26 (Thu) 16:00–17:30,

Room: D (4th floor)

Chair: (pending) ()

**26PM3-1-1 An Analysis of High-Dimensional Associative Dynamics Observed From an Analog Chaotic Neuro-computer Hardware System** 294

Takahisa Ogino (Tokyo Denki University), Yoshihiko Horio (Tokyo Denki University), Kazuyuki Aihara (University of Tokyo)

**26PM3-1-2 Separable 2D Lifting using Discrete-Time Cellular Neural Network with Denoising Technique** 298

Takefumi Konishi (Tamagawa University), Tsuyoshi Otake (Tamagawa University), Hisashi Aomori (Sophia University), Nobuaki Takahashi (IBM Japan), Mamoru Tanaka (Sophia University)

**26PM3-1-3 Optimum Access Point Selection Based on Neural Network Dynamics** 302

Mikio Hasegawa (Tokyo University of Science), Ha Nguyen Tran (NICT), Goh Miyamoto (NICT), Yoshitoshi Murata (NICT), Shuzo Kato (NICT)

**26PM3-1-4 Encoding characteristics of A/D converters based on spiking neurons** 306

Yusuke Matsuoka (Hosei University), Aya Tanaka (Toshiba), Toshimichi Saito (Hosei University)

**26PM3-1-5 Evaluation of a CMOS Spiking Neural Network Circuit with STDP Function** 310

Hideki Tanaka (Kyushu Institute of Technology), Takashi Morie (Kyushu Institute of Technology), Kazuyuki Aihara (The University of Tokyo)

## 26PM3-2: Data analysis

Date: July 26 (Thu) 16:00–17:30,

Room: E (4th floor)

Chair: Jürgen Kurths (University of Potsdam)

**26PM3-2-1 Gibbs regularized nonnegative matrix factorization for blind separation of locally smooth signals** 314

Rafal Zdunek (RIKEN), Andrzej Cichocki (RIKEN)

**26PM3-2-2 Signal separation of chaotic electronic circuits and lasers by independent component analysis** 318

Masahiko Kuraya (Takushoku University), Satoshi Sano (Takushoku University), Atsushi Uchida (Takushoku University), Shigeru Yoshimori (Takushoku University), Ken Umeno (NICT)

**26PM3-2-3 Embedding of high-dimensional data in low-dimensional space by a simple stochastic method** 322

Naoto Nishikawa (Osaka University), Shinji Doi (Osaka University), Sadatoshi Kumagai (Osaka University)

**26PM3-2-4 Speech Separation with Local Cosine Packets: Potentials and Limitations** 326

Albert Kern (University and ETH of Zurich), Ruedi Stoop (University and ETH of Zurich)

**26PM3-2-5 The Evolution of the State Density of Continuous-time Dynamical Systems** 330

Marcus Hellfeld (TU-Dresden), Wolfgang Schwarz (TU-Dresden)

# Author Index

## A

- Aihara, Kazuyuki: 55(24PM2-5), 63(24PM2-7), 142(24PM3-2-3), 234(26PM2-6), 258(26PM2-12), 294(26PM3-1-1), 310(26PM3-1-5)  
Amano, Kazuya: 67(24PM2-8)  
Amemiya, Takashi: 161(25AM1-3)  
Aomori, Hisashi: 7(24AM1-2), 99(24PM2-16), 298(26PM3-1-2)  
Aono, Shuichi: 95(24PM2-15)  
Aou, Shuji: 198(26AM2-2)  
Atuti, Daiuske: 142(24PM3-2-3)

## B

- Bouzahir, Hassane: 59(24PM2-6)  
Brandon, Quentin: 238(26PM2-7)

## C

- Chang, Shih-Tse: 262(26PM2-13)  
Charge, Pascal: 91(24PM2-14), 138(24PM3-2-2)  
Chen, Chun-Hone: 262(26PM2-13), 266(26PM2-14)  
Chen, Shih-Wen: 282(26PM2-18)  
Chen, Yi-Kang: 266(26PM2-14)  
Cheng, Chiz-Chung: 250(26PM2-10), 262(26PM2-13), 266(26PM2-14), 290(26PM2-20)  
Cichocki, Andrzej: 314(26PM3-2-1)

## D

- Daido, Hiroaki: 19(24AM2-1)  
Dana, Syamal Kumar: 187(26AM1-3)  
Davis, Peter: 146(24PM3-2-4)  
Doi, Shinji: 202(26AM2-3), 218(26PM2-2), 230(26PM2-5), 322(26PM3-2-3)

## E

- El Guezar, Fatima: 59(24PM2-6)  
Endo, Tetsuro: 222(26PM2-3)

## F

- Fan, Xiaoya: 39(24PM2-1)  
Fournier-Prunaret, Danièle: 91(24PM2-14), 138(24PM3-2-2)  
Fujimoto, Ken-ichi: 226(26PM2-4)  
Fujisaka, Hisato: 15(24AM1-4)  
Fujiwara, Nobumitsu: 230(26PM2-5)

## G

- Gao, Deyuan: 39(24PM2-1)  
Gong, Yunrui: 119(24PM3-1-2)  
Goto, Shin-itiro: 146(24PM3-2-4)

## H

- Haeiwa, Kazuhisa: 15(24AM1-4)  
Hafez, Ali Gamal: 134(24PM3-2-1)  
Hamada, Takuya: 234(26PM2-6)  
Hao, Shu-Sheng: 103(24PM2-17)  
Hasegawa, Mikio: 302(26PM3-1-3)  
Hasler, Martin: 206(26AM2-4)  
He, Chen: 119(24PM3-1-2)  
He, Di: 119(24PM3-1-2)  
Hellfeld, Marcus: 330(26PM3-2-5)  
Hikihara, Takashi: 150(24PM3-2-5)  
Hironaka, Satoshi: 258(26PM2-12)  
Hisakado, Takashi: 107(24PM2-18)  
Hoang, Thang Manh: 115(24PM3-1-1)  
Hori, Gen: 71(24PM2-9), 126(24PM3-1-4), 274(26PM2-16)  
Horio, Yoshihiko: 55(24PM2-5), 63(24PM2-7), 234(26PM2-6), 294(26PM3-1-1)  
Hosokawa, Yasuteru: 27(24AM2-3)

Hsieh, Chien-Shu: 214(26PM2-1)  
Hsu, Chih-Bin: 103(24PM2-17)  
Huang, Jeng-Tze: 250(26PM2-10)  
Hwu, Rong-Fuh: 103(24PM2-17)

## I

Ibarz, Borja: 206(26AM2-4)  
Ichiki, Akihisa: 31(24AM2-4)  
Ioka, Eri: 254(26PM2-11)  
Ishige, Yasuhide: 169(25AM2-1)  
Ishikawa, Masumi: 75(24PM2-10)  
Ishikawa, Yuki: 169(25AM2-1)  
Ito, Hideaki: 31(24AM2-4)

## J

Jiang, Lingge: 119(24PM3-1-2)

## K

Kaddoum, Georges: 91(24PM2-14)  
Kamikawa, Naoki: 83(24PM2-12)  
Kamio, Takeshi: 15(24AM1-4)  
Kato, Shuzo: 302(26PM3-1-3)  
Kawakami, Hiroshi: 2(23PM1-2), 87(24PM2-13), 278(26PM2-17)  
Kawamura, Kenichi: 63(24PM2-7)  
Kawanari, Toshihiro: 23(24AM2-2)  
Kawata, Junji: 11(24AM1-3)  
Kern, Albert: 326(26PM3-2-4)  
Khan, Tahir Abbas: 134(24PM3-2-1)  
Kim, Song-Ju: 123(24PM3-1-3)  
Kinouchi, Takaaki: 11(24AM1-3)  
Kitajima, Hiroyuki: 183(26AM1-2), 254(26PM2-11)  
Kohda, Tohru: 134(24PM3-2-1), 258(26PM2-12)  
Kokame, Hideki: 246(26PM2-9)  
Konishi, Keiji: 246(26PM2-9)  
Konishi, Takefumi: 298(26PM3-1-2)  
Kousaka, Takuji: 278(26PM2-17)  
Kumagai, Sadatoshi: 202(26AM2-3), 218(26PM2-2), 230(26PM2-5), 322(26PM3-2-3)  
Kumano, Toshiyuki: 238(26PM2-7)  
Kuraya, Masahiko: 47(24PM2-3), 318(26PM3-2-2)

Kurths, Juergen: 181(26AM1-1), 187(26AM1-3)

## L

Li, Minghua: 150(24PM3-2-5)  
Liang, Yew-Wen: 262(26PM2-13), 266(26PM2-14), 290(26PM2-20)  
Liaw, Der-Cherng: 250(26PM2-10), 262(26PM2-13), 266(26PM2-14), 282(26PM2-18), 290(26PM2-20)  
Lin, You Rong: 130(24PM3-1-5)  
Lindberg, Erik: 177(25AM2-3)

## M

Mar, Jeich: 130(24PM3-1-5)  
Martignoli, Stefan: 51(24PM2-4), 79(24PM2-11)  
Matsuoka, Yusuke: 169(25AM2-1), 306(26PM3-1-4)  
Matsuura, Hirotune: 198(26AM2-2)  
Miyamoto, Goh: 302(26PM3-1-3)  
Miyazaki, Syuji: 43(24PM2-2)  
Mizumoto, Masa'aki: 278(26PM2-17)  
Morie, Takashi: 142(24PM3-2-3), 310(26PM3-1-5)  
Moro, Seiichiro: 23(24AM2-2)  
Msakado, Yoshihisa: 194(26AM2-1)  
Murali, K.: 177(25AM2-3)  
Muramatsu, Jun: 146(24PM3-2-4)  
Murata, Yoshitoshi: 302(26PM3-1-3)

## N

Naito, Yuki: 99(24PM2-16)  
Nakagawa, Masahiro: 115(24PM3-1-1)  
Narimatsu, Daisuke: 67(24PM2-8)  
Natsume, Kiyothisa: 75(24PM2-10)  
Nekorkin, Vladimir Isaakovich: 154(25AM1-1)  
Nishikawa, Naoto: 322(26PM3-2-3)  
Nishio, Yoshifumi: 11(24AM1-3), 27(24AM2-3), 79(24PM2-11), 95(24PM2-15), 173(25AM2-2)  
Nishiuchi, Yusuke: 87(24PM2-13)

## O

- Ogino, Takahisa: 294(26PM3-1-1)  
Ogorzalek, Maciej: 1(23PM1-1)  
Ohtani, Toshimitsu: 165(25AM1-4)  
Oosawa, Chikoo: 242(26PM2-8)  
Oowada, Isao: 146(24PM3-2-4)  
Oshima, Kumiko: 206(26AM2-4)  
Otake, Tsuyoshi: 99(24PM2-16), 298(26PM3-1-2)  
Ott, Thomas: 111(24PM2-19)

## P

- Pan, Zhenxing: 218(26PM2-2)  
Piotrowski, Tomasz: 71(24PM2-9), 274(26PM2-16)

## R

- Roviras, Daniel: 91(24PM2-14)

## S

- Saito, Toshimichi: 165(25AM1-4), 169(25AM2-1), 306(26PM3-1-4)  
Sano, Satoshi: 47(24PM2-3), 318(26PM3-2-2)  
Sato, Masatoshi: 7(24AM1-2)  
Schuele, Martin: 111(24PM2-19)  
Schwarz, Wolfgang: 330(26PM3-2-5)  
Senoo, Masato: 218(26PM2-2)  
Shapin, Dmitry Sergeevich: 191(26AM1-4)  
Shi, Bertram E: 210(26PM1-1)  
Shiino, Masatoshi: 31(24AM2-4)  
Shimamura, Tetsuya: 286(26PM2-19)  
Shimizu, Kuniyasu: 222(26PM2-3)  
Shirakuma, Akihiko: 55(24PM2-5)  
Song, Chau-Chung: 282(26PM2-18)  
Sotome, Satoshi: 67(24PM2-8)  
Stoop, Ruedi: 35(24PM1-1), 51(24PM2-4), 79(24PM2-11), 111(24PM2-19), 326(26PM3-2-4)  
Suda, Koki: 3(24AM1-1)  
Suzuki, Yoshinao: 15(24AM1-4)

## T

- Taha, Abdel-Kaddous: 138(24PM3-2-2)  
Takahashi, Masaaki: 75(24PM2-10)  
Takahashi, Nobuaki: 99(24PM2-16), 298(26PM3-1-2)  
Takahashi, Ryo: 123(24PM3-1-3), 274(26PM2-16)  
Tamasevicius, Arunas: 177(25AM2-3)  
Tanaka, Aya: 306(26PM3-1-4)  
Tanaka, Hideki: 310(26PM3-1-5)  
Tanaka, Mamoru: 99(24PM2-16), 298(26PM3-1-2)  
Tanaka, Momoru: 7(24AM1-2)  
Tashiro, Shinya: 67(24PM2-8)  
Tateno, Katsumi: 198(26AM2-2)  
Tateno, Masahiko: 47(24PM2-3)  
Tokuda, Isao: 187(26AM1-3)  
Torikai, Hiroyuki: 157(25AM1-2)  
Tran, Ha Nguyen: 302(26PM3-1-3)  
Tsubone, Tadashi: 270(26PM2-15)  
Tsumoto, Kunichika: 254(26PM2-11)

## U

- Uchida, Atsushi: 47(24PM2-3), 67(24PM2-8), 146(24PM3-2-4), 318(26PM3-2-2)  
Ueta, Tetsushi: 59(24PM2-6), 87(24PM2-13), 238(26PM2-7), 278(26PM2-17)  
Ueyama, Daishin: 222(26PM2-3)  
Ukai, Shohta: 107(24PM2-18)  
Umeno, Ken: 71(24PM2-9), 123(24PM3-1-3), 126(24PM3-1-4), 274(26PM2-16), 318(26PM3-2-2)  
Umeo, Hiroshi: 83(24PM2-12)  
Ushiba, Jun'ichi: 194(26AM2-1)  
Ushida, Akio: 11(24AM1-3)  
Uwate, Yoko: 51(24PM2-4), 79(24PM2-11), 173(25AM2-2)

## W

- Wada, Yasuhiro: 270(26PM2-15)

## X

- Xu, Jie: 138(24PM3-2-2)  
Xu, Sheng-Dong: 290(26PM2-20)

## Y

Yamada, Isao: 71(24PM2-9), 126(24PM3-1-4)  
Yamada, Kenji: 226(26PM2-4)  
Yamagami, Yoshihiro: 11(24AM1-3)  
Yamaguchi, Rei: 202(26AM2-3)  
Yamaguchi, Tomohiko: 161(25AM1-3)  
Yamamoto, Tetsuya: 161(25AM1-3)  
Yamamoto, Toru: 146(24PM3-2-4)  
Yamamura, Kiyotaka: 3(24AM1-1)  
Yip, Hoipang: 146(24PM3-2-4)  
Yoshimori, Shigeru: 47(24PM2-3), 67(24PM2-8), 146(24PM3-2-4), 318(26PM3-2-2)  
Yoshimura, Kazuyuki: 146(24PM3-2-4)  
Yoshinaga, Tetsuya: 226(26PM2-4)  
Youbo, Cai: 75(24PM2-10)  
Yukawa, Masahiro: 126(24PM3-1-4),  
274(26PM2-16)

## Z

Zamora, Gorka: 181(26AM1-1)  
Zdunek, Rafal: 314(26PM3-2-1)  
Zemanova, Luica: 181(26AM1-1)  
Zhang, Meng: 39(24PM2-1)  
Zhou, Changsong: 181(26AM1-1)