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- 570 Microblog-Oriented Backbone Nodes Identification in Public Opinion Diffusion**
Wanlong Sun, Dequan Zheng, Xinchun Hu, Tiejun Zhao
MOE-MS Key Laboratory of Natural Language Processing and Speech Harbin Institute of Technology, Harbin, China
- 574 Task Scheduling of Cloud Computing Based on Improved CHC Algorithm**
Liping Zhang, Weiqin Tong, Shengpeng Lu
School of Computer Engineering and Science, Shanghai University, Shanghai, China
- 578 Optimal Aggregation Platform Mechanism for Mobile App Auction**
Lei Wang, Zhide Chen
School of Mathematics and Computer Science, Fujian Normal University, Fuzhou, China
- 584 Detecting Overlapping Community Structure of Complex Networks in Nature and Society**
Shimin Miao^{1,2}, Wanggen Wan^{1,2}, Xiaoqing Yu^{1,2}, Etienne Thuillier³

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588 Explore Hot Spots of City Based on DBSCAN Algorithm

Xiaoqing Yu^{1,2}, Yupu Ding^{1,2}, Wanggen Wan^{1,2}, Etienne Thuillier³

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592 Visualization Research of the Tweet Diffusion in the Microblog Network

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605 Simulations of Consecutive Diffusion Process

Jiulong Chen¹, Wenhua Zhu^{1,2}, Benoit Eynard², Matthieu Bricogne², Nadege Troussier³

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611 Intelligent Modeling of Moulded Case Circuit Breaker

Shuai Kong¹, Wenhua Zhu^{1,2}, Benoit Eynard², Matthieu Bricogne², Nadege Troussier³

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**Computer Graphic and Virtual Reality
Remote Sensing and GIS**

596 Design of Space Class Library for 3D Geological Modeling

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600 Point Cloud Data Enhancement Based on Layer Connected Region

Hongjuan Yang, Jiwen Chen

617 Automatic 2D Animation Generation

Hao Liu¹, Songmao Zhang², Ruqian Lu²

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623 Virtual Neurosurgical Education for Image-guided Deep Brain Stimulation Neurosurgery

Yuan Liu

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627 Variable Step Size LMS algorithm Based on Modified Sigmoid Function
Yong Chen, Jinpeng Tian, Yanping Liu
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631 Research on 3D Laser Scanning Technology Based on Point Cloud Data Acquisition
Jing Wang^{1,2}, Juan Zhang^{1,2}, Qingtong Xu^{1,2}
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635 The 3D-simulation Implementation of Parking Guidance System
Yingying Yuan, Kai Liu
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640 Effects of Individualized Head-related Transfer Function on Predicting Spatial Discrimination Threshold Using Binaural Auditory Model
Yu Liu, Bosun Xie
Acoustic Lab, Physics Dept., School of Science South China University of Technology, Guangzhou, China

644 Generalized Relative Evaluation Measure for Spectral Unmixing
Ouiem Bchir, Mohamed Maher Ben Ismail
College of Computer and Information Sciences, CS dept, King Saud University, Riyadh, KSA

651 Survey on Number of Endmembers Estimation Techniques for Hyperspectral Data Unmixing
Mohamed Maher Ben Ismail, Ouiem Bchir
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656 Impulse Current Testing System for Simulating Lightning Effect
Yi Lin¹, Qibin Zhou²
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662 Shadow Removal of Single Texture Region Using Local Histogram Matching
Pan Xiao, Yong Zhao, Yule Yuan
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666 A Spectral Based Visual Matching Method for Image Classification
Yan Song, Wu Guo, LiRong Dai, Ian Vince Mcloughlin
National Engineering Laboratory for Speech and Language Information Processing, University of Science and Technology of China, Hefei, China

671 Improving Exemplar Based Inpainting Method with a Fuzzy Approach
Mehdi Ghayoumi, Cheng Chang Lu
Computer Science Department, Kent State University, Kent, Ohio, USA

676 Motion Estimation for Depth Maps Coding Based on Rendered View Distortion
Zhiru Shi, Yunyu Shi, Xiaoyun Zhang, Zhiyong Gao
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681 Shape Model and Marginal Space of 3D Ultrasound Volume Data for Automatically Detecting a Fetal Head
Siqing Nie¹, Jinhua Yu¹, Yuanyuan Wang¹, Jianqiu Zhang¹, Ping Chen²
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686 Multidimensional DFT-modulated Filter Bank: Design and Implementation

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Alexander Petrovsky³
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and Radioelectronics, Minsk, Belarus
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and Radioelectronics, Minsk, Belarus

- 691 Chinese Characters Recognition via
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Yexiao Wu, Simon Liao
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of Winnipeg, Winnipeg, Manitoba, Canada*
- 695 A Novel Efficient Method for Abnormal
Face Detection in ATM**
Xihao Zhang¹, Lin Zhou¹, Tao Zhang², Jie
Yang²
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Shanghai JiaoTong University, Shanghai,
China
²Department of Automation Shanghai Jiao
Tong University, Shanghai, China

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Audio and Music Processing**

- 701 Musical Genres Classification Using
Markov Models**
Sylvain Iloga^{1,3}, Olivier Romain², Lotfi
Bendaouia², Maurice Tchuente³
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Computer Science
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- 706 Comparison of Two Tonality Estimation
Methods Used in a Psychoacoustic
Model**
Hao Chen, Armin Taghipour, Bernd Edler
*International Audio Laboratories Erlangen,
Erlangen, Germany*
- 711 Subjective Evaluation of Packet Loss
Recovery Techniques for Voice over IP**
Masahito Okamoto¹, Takashi Nose¹,
Akinori Ito¹, Takeshi Nagano²

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University, Sendai, Japan

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- 715 Bidirectional Weight Graph
Transformation Matching Algorithm**
Song Wang, Xin Guo, Xiaomin Mu, Lin Qi
*School of Information Engineering,
Zhengzhou University, Zhengzhou, China*
- 721 The Design of Ambisonics Decoders for
Irregular Speaker Array Conforming to
Subjective Perception**
Rong Zhu, Changchun Bao, Maoshen Jia,
Bing Bu
*Speech and Audio Signal Processing
Laboratory, School of Electronic
Information and Control Engineering,
Beijing University of Technology, Beijing,
China*
- 726 Very Short Feature Vector for Music
Genre Classification Based on Distance
Metric Learning**
Dalwon Jang and SeiJin Jang
*Smart Media Research Center,
Broadcasting & ICT R&D Division, Korea
Electronics Technology Institute, Korea*

- 730 An Audio Feature Extraction Scheme
Based on Spectral Decomposition**
Xueyuan Zhang, Zhuosheng Su, Pei Lin,
Qianhua He, Jichen Yang
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Engineering, South China University of
Technology, Guangzhou, China*
- 734 Scalable Audio Coding Based on Spatial
Perception in Audio Surveillance**
Hui Liu, Li Gao
*School of Art and Media, Wuhan Donghu
University, Wuhan, China
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Multimedia Software, Computer School of
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**Oral Session XV
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- 738 A Video Steganography Algorithm for MVC without Distortion Drift**
Guanghua Song, Zhitang Li, Juan Zhao,
Hao Tu, Junxia Cheng
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Huazhong University of Science
& Technology, Wuhan, China*
- 743 Adaptive Multi-Strategy for Multi-Vehicle with Mutual Occlusion Tracking**
Jie Yin, Guangling Sun
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Engineering, Shanghai University,
Shanghai, China*
- 749 Fast Traffic Sign Detection under Challenging Conditions**
Bao Trung Nguyen¹, JaeRyong Shim²,
Joong Kyu Kim¹
¹*Department of Electrical and Computer
Engineering, Sungkyunkwan University,
South Korea*
²*NanoPoint Co., Ltd. Seoul, South Korea*
- 753 Multi-Operator Combination for Character Segmentation in Complex Background**
Yuchun Fang, Jialu Yao
*School of Computer Engineering and
Science, Shanghai University, Shanghai,
China*
- 759 Image Super Resolution Based on Local Self Examples with Nonlocal Constraints and Enhancement with 2-order Holomorphic Complete Differential Kernel**
He Jiang, Zhiyong Gao, Xiaoyun Zhang
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Information Processing, Shanghai Jiao
Tong University, Shanghai, China*
- 765 Fast H.264/AVC to HEVC Transcoding Based on Residual Homogeneity**

Feiyang Zheng, Zhiru Shi, Xiaoyun Zhang,
Zhiyong Gao
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Network Engineering, Shanghai Jiao Tong
University, Shanghai, China*

- 771 Chinese Character Recognition by Zernike Moments**
Tiansheng Wang, Simon Liao
*Applied Computer Science, the University
of Winnipeg, Winnipeg, Manitoba*

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- 775 Electrostatic Tactile Rendering of Image Based on Shape from Shading**
Tingting Wang, Xiaoying Sun
*College of Communications Engineering,
Jilin University, Changchun, China*
- 780 Optimization Control for Biped Motion Trajectory**
Yumeng Wang, Zheng Wang, Guanbo Bao,
Bo Xu
*Interactive Digital Media Technology
Research Center, Institute of Automation,
Chinese Academy of Sciences, Beijing,
China*
- 786 Eye Expression Animation Based on Compliant Spatial Mechanisms Model**
Jianjian Wu, Guoyun Lv, Yangyu Fan
*School of Electronic and Information,
Northwestern Polytechnical University,
Xi'an, China*
- 792 Specific Material Properties for Voxels in FEM-Based 3D Model Deformation**
Yanlu Yin^{1,2}, Wanggen Wan^{1,2},
Chao Yang^{1,2}, Shimin Miao^{1,2}
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Information Engineering, Shanghai
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797 Procedural Modeling of Buildings Based on Facade Image Segmentation

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Xiaoqiang Zhu^{1,2}

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802 Research and Implementation of Shortest Path Algorithm on PLY Triangular Mesh Model

Xiaojun Zhou, Yangyang Gao, Xiuli Ma,
Jiejie Li

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Institute of Smart City, Shanghai University, Shanghai, China

806 FPGA-Implementation of a Bio-Inspired Medical Hearing Aid Based DWT-OLA

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Poster Session IV

Computer Graphic and

Virtual Reality Bio-informatics

Big Data and Cloud Processing

812 Evacuation of Pedestrians Using Lattice Gas Model and Floor Field Model

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Chonghui Zhang^{1,2}

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817 Designing and Implementing an Online Card Game Based on Android 2D Graphics

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822 A Pipeline for Surface Reconstruction of 3-Dimensional Point Cloud

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827 A Subjective Quality Evaluation for 3D Point Cloud Models

Juan Zhang^{1,2}, Wenbin Huang¹, Xiaoqiang Zhu¹, Jenq-Neng Hwang³

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832 Room Impulse Response Simulation Based on Equal-area Ray Tracing

Chengcun Gu, Mengyao Zhu and Haofeng Lu, Benoit Beckers

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837 Mean Shift Clustering Segmentation and RANSAC Simplification of Color Point Cloud

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842 Research on 3D Scanning Point Cloud De-nosing

Xuandong An^{1,2}, Xiaoqing Yu^{1,2}, Qingtong Xu^{1,2}, Jing Wang^{1,2}

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846 A Two-Phase Approximation of Cylindrical Branching Models

Xiaoqiang Zhu^{1,2}, Junli Chen^{1,2}, Juan Zhang^{1,2}

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850 The Research on 3-D Simulation of Pedestrian Evacuation of a Room

Chonghui Zhang^{1,2}, Xiaoqing Yu^{1,2}, Ranran Chang^{1,2}

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854 Study on Simulation of Catheter-Heart Interaction Based on BD-Tree

Wenhui Li^{1,2}, Xuzhi Wang^{1,2}, Xiuli Ma^{1,2}

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858 An Adaptive Threshold Algorithm Based on Wavelet in QRS Detection

Xiaojun Zhou, Xiuli Ma, Yang Li
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863 Classifications with Transferred Samples Based on RF-Spaces

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868 POS Weighted TF-IDF Algorithm and its Application for an MOOC Search Engine

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Oral Session XVII

Language and Speech Processing

Multimedia SOC Design

874 Adaptive Compression-Based Models of Chinese Text

William J. Teahan, Peiliang Wu, Wei Liu

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Kingdom

882 Semi-supervised Learning of Dialogue Acts Using Sentence Similarity Based on Word Embeddings

Xiaohao Yang¹, Zhenfeng Chen², Weilan Wu², Jia Liu¹

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887 Robot: Have I Done Something Wrong?

—Analysis of Prosodic Features of Speech Commands under the Robot's Unintended Behavior

Noriko Totsuka, Yuya Chiba, Takashi

Nose and Akinori Ito

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University, Sendai, Japan

891 Acoustic Modeling for Hindi Speech Recognition in Low-Resource Settings

Anik Dey, Weibin Zhang, Pascale Fung

Human Language Technology Center,

Department of Electronic & Computer

Engineering, HKUST, Hong Kong

895 The Influence of Pitch Accuracy on Synthetic Speech Quality
Yuwen Yu, Xiaoqun Zhao, Jingyun Xu, Yang Zhang
College of Electronic and Information Engineering, Tongji University, Shanghai, China

900 Lexicon Propagation for Learning a Large-scale Semantic Parser
Jiongkun Xie, Xiaoping Chen
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906 Accelerating Gesture Recognition Algorithm Using Coarse Grained Reconfigurable Architectures
Minsik Kim¹, Deokho Kim¹, Minyong Sung¹, Wonjae Lee², Jaehyun Kim², and Won Woo Ro¹
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Remote Sensing and GIS
Image Processing
Multimedia SOC Design

911 A Novel Vectorized Approach to DOA and FOA Estimation
Yi Zhang, Zhongfu Ye, Xu Xu
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915 A Noise Removal Approach for Object-Based Classification of VHR Imagery via Post-classification
Laiwen Zheng, Lihong Wan, Hong Huo, Tao Fang
Department of Automation, Shanghai Jiao Tong University Key Laboratory of System Control and Information Processing, Ministry of Education, Shanghai, China

921 Detection of LFM Signals in Low SNR Based on STFT and Wavelet Denoising
Yu Duan, Jinzhen Wang, Shaoying Su, Zengping Chen
ATR Key Lab, National University of Defense Technology, Changsha, China

926 The Two-dimensional Code Image Tilt Correction Method Based on Least Squares Support Vector Machines
Yuanqian Cao¹, Shicao Luo¹, Yongsheng Ding^{1,2}, Kuangrong Hao^{1,2}
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931 Crowded Abnormal Detection Based on Mixture of Kernel Dynamic Texture
Shishi Duan, Xiangyang Wang, Xiaoqing Yu
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937 Fast Background Modeling Using GMM on GPU
Xuannan Ye^{1,2}, Wanggen Wan^{1,2}
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942 Structurally Orthogonal Finite Precision Implementation Quaternionic Based Paraunitary Filter Bank
Nick Petrovsky¹, Andrew Stankevich¹, Wanggen Wan², Alexander Petrovsky¹
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948 Road Pedestrian Detection Based on a Cascade of Feature Classifiers
Xiao Zhang, Huansheng Song, Hua Cui

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Chang'an University, xi'an, China*

**952 K-means Clustering Based Compression
Algorithm for the High-throughput
DNA Sequence**

Li Tan, Jifeng Sun
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Engineering, South China University of
Technology, Guangzhou, China*

**956 An Intelligent Approach for Robust
Detection and Recognition of Multiple
Color and Font Styles Automobiles
License Plates: A Feature-Based
Algorithm**

M. Usman Maqbool Bhutta¹, Hasan
Mahmood¹, Hafiz Malik²
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University, Islamabad, Pakistan*
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**962 Structure Maps Based Pedestrian
Detection**

Xiaoguang Kang, Shengjin Wang
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Tsinghua University, Beijing, China*

**968 Recognition of Teeth-Marked Tongue
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Qing Shao, Xiaoqiang Li, Zhicheng Fu
*School of Computer Engineering and
Science, Shanghai University, Shanghai,
China*

**973 Super-Resolution Acoustic Imaging
Using Non-Uniform Spatial Dictionaries**

Mahendra Samarawickrama, Nicolas Epain,
Craig Jin
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Laboratory, School of Electrical and
Information Engineering, the University of
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