

IJCNN 2017 Program

March 8, 2017

Sunday, May 14th, 2017

Time	La Perouse:	Arteaga:	Parallel (Cook):	Parallel 1 (Room #1+13+14):	Parallel 2 (Room #2+11+12):	Parallel 3 (Room #3+10+9):	Parallel 4 (Room #4+7+8):	Parallel 5 (Room #5+6):	Parallel 6 (Room #5+6):
8:00AM				T7: Tutorial 7: Topological and graph based clustering: Recent algorithmic advances	T4: Tutorial 4: Information theoretic learning in pattern classification	T6: Tutorial 6: Deep Learning Using Multi-Layer Perceptron and Improving its Performance	T12: Tutorial 12: Monte Carlo Search and other Simulation Optimization Methods	T13: Tutorial 13: Data insights from machine learning with applications to biomedical data	
10:00AM	Break								
10:20AM				T1: Tutorial 1: Interactive Machine Learning: From Classifiers to Robotics	T5: Tutorial 5: Change and Anomaly Detection in Data Streams	T10: Tutorial 10: Deep Learning for Face Recognition	T17: Tutorial 17: From Complex Systems to Neuroscience	T16: Tutorial 16: Advanced Neural Network Applications for Smart Grid Operations	
12:20PM	Break								
1:30PM				T2: Tutorial 2: Physics of the mind	T8: Tutorial 8: Advanced Methodologies for Predictive Learning	T15: Tutorial 15: Deep multi-view representation learning: methods and applications	T19: Tutorial 19: Towards the Ultimate Brain Computer - Hardware Designs of Artificial and Spiking Neural Networks	T14: Tutorial 14: Time-Evolving Data Streams Learning and Short-Term Urban Traffic Flow Forecasting	
3:30PM	Break								
3:50PM				T3: Tutorial 3: Brain-Inspired Turing Machine Logic in Neural Networks for Vision, Speech, and Natural Languages	T20: Tutorial 20: Cutting edge heuristics in Computational Intelligence with Visual Data Mining	T9: Tutorial 9: Deep Learning for EEG Signal Processing and Health Informatics	T18: Tutorial 18: Event-Related Potentials: Cognition in Brain-Computer Interfaces	T11: Tutorial 11: Graphical Probabilistic Modeling and Machine Learning for Multimedia Content Analysis	
5:50PM	Break								
6:30pm	Opening Reception: Le Perouse								
8:30PM	End of Day								

Monday, May 15th, 2017

Time	La Perouse:	Arteaga:	Parallel (Cook):	Parallel 1 (Room #1+13+14):	Parallel 2 (Room #2+11+12):	Parallel 3 (Room #3+10+9):	Parallel 4 (Room #4+7+8):	Parallel 5 (Room #5+6):	Parallel 6 (Room #5+6):
8:00AM				Plen1 : Plenary session 1 : Jose C. Principe (La Perouse)					
9:00AM				Break					
9:20AM			S19: Large datasets and big data analytics: Theory, methods, and applications	S07: Cognition and development	eeeg: Analysis	EEG	rand: Randomized and noise-based learning	deep1: Deep learning 1: theory	theory1: Theory 1
10:40AM				Break					
11:00AM			S01a: Advanced analytics for large-scale complex data environment 2	S25: Brain, Cognitive Algorithms and Mind, and development	gene: Genetic and molecular applications	prob: Probabilistic methods	deep2: Deep learning 2: theory	theory 2: Theory 2	
12:20PM				Break					
1:30PM			Plen2 : Plenary session 2: Hava Siegelmann (La Perouse)						
2:30PM				Break					
2:50PM	Panel1: Cutting edge neural network search		S01b: Advanced analytics for large-scale complex data environment 1	S23: Machine learning methods applied to vision and robotics (MLMVR) 1	Ma- learning methods applied to vision and robotics	interf: Behavior and user interfaces	fac: Matrix factorization and feature discovery	deep3 : Deep learning 3: theory	theory3: Theory 3
4:30PM				Break					
4:40PM			recom: Recommender systems and graph analysis	S06: Biologically inspired neural networks and learning systems for robotics	Bi- learning systems for robotics	sen- sensory processing: Vision, audition, and olfaction	sys: Software and systems	deep4: Deep learning 4: Applications	theory4: Theory 4
6:20PM				Break					
7:30			Poster Session: Arteaga						
9:00PM			End of Day						

Tuesday, May 16th, 2017

Time	La Perouse:	Arteaga:	Parallel (Cook):	Parallel 1 (Room #1+13+14):	Parallel 2 (Room #2+11+12):	Parallel 3 (Room #3+10+9):	Parallel 4 (Room #4+7+8):	Parallel 5 (Room #5+6):	Parallel 6 (Room #5+6):
8:00AM				Plen3 : Plenary session 3: Alex Graves (La Perouse)					
9:00AM				Break					
9:20AM				S09a: Concept drift, domain adaptation, and learning in dynamic environments 1	S11: Data mining and knowledge discovery in cyberphysical systems	S15a: Extreme learning machines	spike1: Spiking neurons: adaptation 1	deep5: Deep learning 5: Applications	theory5: Theory 5
10:40AM				Break					
11:00AM				S09b: Concept drift, domain adaptation, and learning in dynamic environments 2	S30: Optimizing neural networks via evolutionary computation and swarm intelligence	S15b: Extreme learning machines	spike2: Spiking neurons: adaptation 2	deep6: Deep learning 6: Applications	theory6: Theory 6
12:20PM				Break					
1:30PM				Plen4 : Plenary session 4: Paul Werbos (La Perouse)					
2:30PM				Break					
2:50PM	Panel2: Cybersecurity Intelligence			S12+29: Datastream Mining	lang: Natural language processing	S32a: Reservoir computing in hardware 1	spike3: Spiking neuron: hardware	deep7: Deep learning 7: Applications	theory7: Theory 7
4:30PM				Break					
4:40PM				time: Temporal processing	text: Text and document processing	S32b: Reservoir computing in hardware 2	spike4: Spiking neurons	convnet1: Convolutional neural networks 1	theory8: Theory 8
6:20PM				Break					
7:30				Poster Session: Arteaga					
9:00PM				End of Day					

Wednesday, May 17th, 2017

Time	La Perouse:	Arteaga:	Parallel (Cook):	Parallel 1 (Room #1+13+14):	Parallel 2 (Room #2+11+12):	Parallel 3 (Room #3+10+9):	Parallel 4 (Room #4+7+8):	Parallel 5 (Room #5+6):	Parallel 6 (Room #5+6):
8:00AM					Plen5 : Plenary session 5: Stephen Grossberg (La Perouse)				
9:00AM				Break					
9:20AM			S08: Computational intelligence algorithms for digital audio applications	text2: Text and document processing 2	S27a: Neuro-inspired computing with nanoelectronic devices 1	cortex: Cortical modeling and simulation	convnet2: Convolutional neural networks 2	theory9: Theory 9	
10:40AM				Break					
11:00AM			S20: Machine learning for business analytics	S14+18: Explainability and Interpretability in Machine Learning	S27b: Neuro-inspired computing with nanoelectronic devices 2	mixture: Mixture models	semisup: Semisupervised learning	neuro: Computational neuroscience	
12:20PM				Break					
1:30PM				Plen6 : Plenary session 6: Christof Koch (La Perouse)					
2:30PM				Break					
2:50PM	Panel3: INNS 30th anniversary		S10+24: Cybersecurity Analytics	clst1: Clustering 1	hw: Neuromorphic engineering	ensemble: Ensemble learning	rl: Reinforcement learning	behav: Behavior analysis	
4:30PM				Break					
4:40PM	Panel4: New opportunities in neural network funding		security: Security and risk assessment	clst2: Clustering 2	robot: Robotics	img: Image analysis	rl-ctrl: Reinforcement learning control	pred: Prediction and forecasting	
6:20PM				Break					
7:00PM				Banquet: Arteaga					
9:00PM				End of Day					

Thursday, May 18th, 2017

Time	La Perouse:	Arteaga:	Parallel 1 (Cook):	Parallel 2 (Room #1+13+14):	Parallel 3 (Room #2+11+12):	Parallel 4 (Room #3+10+9):	Parallel 5 (Room #4+7+8):	Parallel 6 (Room #5+6):
8:00AM								
Plen7 : Plenary session 7: Odest Chadwicke Jenkins (La Perouse)								
9:00AM				Break				
9:20AM			self-org: Self-organization	S17: Intelligent vehicle and transport systems	att: Attention and emotion	med: Medical and health applications	scene: Scene analysis	rnn: Recurrent neural networks
10:40AM				Break				
11:00AM			dyn: Neurodynamics	S22: Machine learning methods applied to medicine	brain: Brain imaging and analysis	health: Health applications	feature: Feature selection	sync: Circuits and synchrony
12:20PM				Break				
1:30PM			WS2a: Workshop 2: Deep Learning for Music	WS2b: Workshop 2: Deep Learning for Music	WS3: Computational Aspects of Pattern Recognition and Computer Vision with Neural Systems	WS4: Workshop 4: Canceled	WS5a: Workshop 5: Machine Learning for Large-Scale Networks	WS6: Workshop 6: Advances in Learning from/with Multiple Learners (ALML)
6:30PM				End of Day				

Friday, May 19th, 2017

Time	La Perouse:	Arteaga:	Parallel 1 (Cook):	Parallel 2 (Room #1+13+14):	Parallel 3 (Room #2+11+12):	Parallel 4 (Room #3+10+9):	Parallel 5 (Room #4+7+8):	Parallel 6 (Room #5+6):
9:00AM			WS1: Workshop 1: Developmental Plasticity and Evolutionary Robotics	WS2b: Workshop 2: Deep Learning for Music			WS5b: Workshop 5: Machine Learning for Large-Scale Networks	
End	End of Day							

IJCNN 2017 Program

Tutorial T7: Tutorial 7: Topological and graph based clustering: Recent algorithmic advances

Sunday, May 14, 8:00AM-10:00AM, Room: Parallel 2 (Room #1+13+14), Instructor: Nistor Grozavu

Tutorial T4: Tutorial 4: Information theoretic learning in pattern classification

Sunday, May 14, 8:00AM-10:00AM, Room: Parallel 3 (Room #2+11+12), Instructor: Bao-Gang Hu

Tutorial T6: Tutorial 6: Deep Learning Using Multi-Layer Perceptron and Improving its Performance

Sunday, May 14, 8:00AM-10:00AM, Room: Parallel 4 (Room #3+10+9), Instructor: B. Chandra

Tutorial T12: Tutorial 12: Monte Carlo Tree Search and other Simulation Optimization Methods

Sunday, May 14, 8:00AM-10:00AM, Room: Parallel 5 (Room #4+7+8), Instructor: Michael C. Fu

Tutorial T13: Tutorial 13: Data insights from machine learning with applications to biomedical data

Sunday, May 14, 8:00AM-10:00AM, Room: Parallel 6 (Room #5+6), Instructor: Paulo Lisboa

Tutorial T1: Tutorial 1: Interactive Machine Learning: From Classifiers to Robotics

Sunday, May 14, 10:20AM-12:20PM, Room: Parallel 2 (Room #1+13+14), Instructor: Brad Hayes

Tutorial T5: Tutorial 5: Change and Anomaly Detection in Data Streams

Sunday, May 14, 10:20AM-12:20PM, Room: Parallel 3 (Room #2+11+12), Instructor: Giacomo Broacchi

Tutorial T10: Tutorial 10: Deep Learning for Face Recognition

Sunday, May 14, 10:20AM-12:20PM, Room: Parallel 4 (Room #3+10+9), Instructor: Richa Singh; Mayank Vatsa

Tutorial T17: Tutorial 17: From Complex Systems Theory to Systems Neuroscience

Sunday, May 14, 10:20AM-12:20PM, Room: Parallel 5 (Room #4+7+8), Instructor: Peter Erdi

Tutorial T16: Tutorial 16: Advanced Neural Network Applications for Smart Grid Operations

Sunday, May 14, 10:20AM-12:20PM, Room: Parallel 6 (Room #5+6), Instructor: G. Kumar Venayagamoorthy

Tutorial T2: Tutorial 2: Physics of the mind

Sunday, May 14, 1:30PM-3:30PM, Room: Parallel 2 (Room #1+13+14), Instructor: Leonid Perlovsky

Tutorial T8: Tutorial 8: Advanced Methodologies for Predictive Learning

Sunday, May 14, 1:30PM-3:30PM, Room: Parallel 3 (Room #2+11+12), Instructor: Vladimir Cherkassky

Tutorial T15: Tutorial 15: Deep multiview representation learning: methods and applications

Sunday, May 14, 1:30PM-3:30PM, Room: Parallel 4 (Room #3+10+9), Instructor: Raman Arora; Kevin Duh

Tutorial T19: Tutorial 19: Towards the Ultimate Brain Computer - Hardware Designs of Artificial and Spiking Neural Networks

Sunday, May 14, 1:30PM-3:30PM, Room: Parallel 5 (Room #4+7+8), Instructor: Jae-sun Seo and Bipin Rajendran

Tutorial T14: Tutorial 14: Time-Evolving Data Streams Learning and Short-Term Urban Traffic Flow Forecasting

Sunday, May 14, 1:30PM-3:30PM, Room: Parallel 6 (Room #5+6), Instructor: Francesco Masulli

Tutorial T3: Tutorial 3: Brain-Inspired Turing Machine Logic in Neural Networks for Vision, Speech, and Natural Languages

Sunday, May 14, 3:50PM-5:50PM, Room: Parallel 2 (Room #1+13+14), Instructor: Juyang Weng

Tutorial T20: Tutorial 20: Cutting edge heuristics in Computational Intelligence with Visual Data Mining

Sunday, May 14, 3:50PM-5:50PM, Room: Parallel 3 (Room #2+11+12), Instructor: Boris Kovalerchuk

Tutorial T9: Tutorial 9: Deep Learning for EEG Signal Processing and Health Informatics

Sunday, May 14, 3:50PM-5:50PM, Room: Parallel 4 (Room #3+10+9), Instructor: Francesco Carlo Morabito

Tutorial T18: Tutorial 18: Event-Related Potentials: Cognition in Brain-Computer Interfaces

Sunday, May 14, 3:50PM-5:50PM, Room: Parallel 5 (Room #4+7+8), Instructor: Joao Luis Garcia Rosa

Tutorial T11: Tutorial 11: Graphical Probabilistic Modeling and Machine Learning for Multimedia Content Analysis

Sunday, May 14, 3:50PM-5:50PM, Room: Parallel 6 (Room #5+6), Instructor: Xiao-Ping (Steven) Zhang and Zhu Liu

Special Track Recep: Welcome Reception

Sunday, May 14, 6:30PM-8:30PM, Room: La Perouse, Chair: Yoonsuck Choe

Session Plen1: Plenary session 1: Jose C. Principe

Monday, May 15, 8:00AM-9:00AM, Room: La Perouse, Chair: Cesare Alippi

8:00AM A Cognitive Architecture for Object Recognition in Video

Jose C. Principe

Special Session S19: Large datasets and big data analytics: Theory, methods, and applications

Monday, May 15, 9:20AM-10:40AM, Room: Parallel 1 (Cook), Chair: Luca Oneto

9:20AM Simple and Efficient Parallelization for Probabilistic Temporal Tensor Factorization [#267]

Guangxi Li, Zenglin Xu, Linnan Wang, Jinmian Ye, Irwin King and Michael Lyu

9:40AM Exploiting Sparsity to Improve the Accuracy of Nyström-based Large-scale Spectral Clustering [#770]

Mahesh Mohan and Claire Monteleoni

10:00AM Brazil's Bolsa Familia and Young Adult Workers: A Parallel RDD Approach to Large Datasets [#308]

Aloisio Dourado, Rommel Carvalho, Donald Pianto and Gustavo van Erven

10:20AM Advanced Pseudo-inverse Linear Discriminants for the Improvement of Classification Accuracies [#736]

Zhichao Jin, Lili Guo and Daqi Gao

Special Session S07: Cognition and development

Monday, May 15, 9:20AM-10:40AM, Room: Parallel 2 (Room #1+13+14), Chair: Pablo Barros

9:20AM A Self-Organizing Model for Affective Memory [#334]

Pablo Barros and Stefan Wermter

9:40AM Hyperarticulation Aids Learning of New Vowels in a Developmental Speech Acquisition Model [#623]

Anja Philippsen, Felix Reinhart, Britta Wrede and Petra Wagner

10:00AM Neurorobotic Simulations on the Degradation of Multiple Column Liquid State Machines [#76]

Ricardo de Azambuja, Daniel Garcia, Martin Stoelen and Angelo Cangelosi

10:20AM The art of scaling up : a computational account on action selection in basal ganglia [#481]

Bhargav Teja Nallapu, Bapi Raju Surampudi and Nicolas P. Rougier

Session eeg: EEG Analysis

Monday, May 15, 9:20AM-10:40AM, Room: Parallel 3 (Room #2+11+12), Chair: Chaomin Luo

9:20AM EEG Classification Based On Sparse Representation [#326]

Hongwei Mo, Chaomin Luo and Gene Eu Jan

9:40AM Stochastic and Deterministic Stationarity Analysis of EEG Data [#359]

Daniel Moreira Cestari and Joao Luis Garcia Rosa

10:00AM Enhanced Detection of Movement Onset in EEG through Deep Oversampling [#606]

Noura Al Moubayed, Bashar Awwad Shiekh Hasan and Andrew Stephen McGough

10:20AM Investigating the possibility of applying EEG lossy compression to EEG-based user authentication [#795]

Binh Nguyen, Dang Nguyen, Wanli Ma and Dat Tran

Session rand: Randomized and noise-based learning

Monday, May 15, 9:20AM-10:40AM, Room: Parallel 4 (Room #3+10+9), Chair: Bart Kosko

9:20AM Single-Cell Based Random Neural Network for Deep Learning [#72]

Yonghua Yin and Erol Gelenbe

9:40AM Efficient k-means++ with Random Projection [#176]

Jan Y. K. Chan and Alex Po Leung

10:00AM A Two-Phase Representation Based Face Recognition Method With 'Random-Filtering' Virtual Samples [#383]

Deyan Tang, Siwang Zhou, Wenjuan Yang and Yonghe Liu

10:20AM Using Noise to Speed Up Video Classification with Recurrent Backpropagation [#931]

Bart Kosko and Olaoluwa Adigun

Session deep1: Deep learning 1: theory

Monday, May 15, 9:20AM-10:40AM, Room: Parallel 5 (Room #4+7+8), Chair: Nicolo Navarin

9:20AM DeepRecon: Dynamically Reconfigurable Architecture for Accelerating Deep Neural Networks [#892]

Tayyar Rzayev, Saber Moradi, David Albonesi and Rajit Manohar

9:40AM A Robust Adaptive Stochastic Gradient Method for Deep Learning [#670]

Caglar Gulcehre, Jose Sotelo, Marcin Moczulski and Yoshua Bengio

10:00AM Data-centric Computation Mode for Convolution in Deep Neural Networks [#792]

Peiqi Wang, Zhenyu Liu, Haixia Wang and Dongsheng Wang

10:20AM Deep Graph Node Kernels: a Convex Approach [#759]

Luca Oneto, Nicolo Navarin, Alessandro Sperduti and Davide Anguita

Session theory1: Theory 1

Monday, May 15, 9:20AM-10:40AM, Room: Parallel 6 (Room #5+6), Chair: Shalabh Bhatnagar

9:20AM Selective and Cooperative Potentiality Maximization for Improving Interpretation and Generalization [#65]

Ryotaro Kamimura

9:40AM Neural Networks Between Integer and Rational Weights [#77]

Jiri Sima

10:00AM Weibull Partition Models with Applications to Hidden Semi-Markov Models [#83]

Youwei Lu, Shogo Okada and Katsumi Nitta

10:20AM A Model based Search Method for Prediction in Model-free Markov Decision Process [#174]

Ajin George Joseph and Shalabh Bhatnagar

Special Session S01a: Advanced data analytics for large-scale complex data environment 2

Monday, May 15, 11:00AM-12:20PM, Room: Parallel 1 (Cook), Chair: Liu Xiaobo

11:00AM Deeply-Supervised CNN for Prostate Segmentation [#243]

Zhu Qikui, Du Bo, Turkbey Baris, Choyke Peter L. and Yan Pingkun

11:20AM A Weighted-resampling based Transfer Learning Algorithm [#137]

Xiaobo Liu, Zhentao Liu, Guangjun Wang, Zhihua Cai and Harry Zhang

11:40AM Fitness with Diversity Information for Selection of Evolutionary Algorithms [#134]

Yang Li, Chengjun Li, Gang Liu and Wei Long

12:00PM A Kernel-based adaptive Fuzzy C-Means algorithm for M-FISH image segmentation [#335]

Alan William Dougherty and Jane You

Special Session S25: Mind, Brain, and Cognitive Algorithms

Monday, May 15, 11:00AM-12:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Leonid Perlovsky

11:00AM Neural Network Modeling of Business Decision Making [#197]

Daniel Levine, Kay-Yut Chen and Bakur AlQaudi

11:20AM Microcalcification Detection Using Self Organizing Neuro Glia Network Classifier [#761]

Shems Bertegi and Kirmene Marzouki

11:40AM Physics of the Mind [#938]

Leonid Perlovsky

12:00PM Resting State Neural Networks and Energy Metabolism [#769]

Raymond Noack, Manjesh Chetan, Ruzinko Miklos, Siegelmann Hava and Kozma Robert

Session gene: Genetic and molecular applications

Monday, May 15, 11:00AM-12:20PM, Room: Parallel 3 (Room #2+11+12), Chair: Marley Vellasco

11:00AM Accurate Classification of Immunomodulatory RNA Sequences [#526]

Hugo A. Guillen-Ramirez, Jose Colbes, Carlos A. Brizuela and Israel M. Martinez-Perez

11:20AM Structural Damage Assessment Using Artificial Immune Systems and Wavelet Decomposition [#878]

Arthur Shi and Xiao-Hua Yu

11:40AM Feature importance calculation and protein quality assessment on the decoy discrimination problem [#914]

Edwin Tavera, Marley Vellasco, Bruno Horta and Fabio Custodio

12:00PM Convex Local Sensitive Low Rank Matrix Approximation [#782]

Chongya Li, Lin Zhu, Wenzheng Bao, Yongli Jiang, Changan Yuan and De-Shuang Huang

Session prob: Probabilistic methods

Monday, May 15, 11:00AM-12:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Robert Sabourin

11:00AM Adaptive Blocked Gibbs Sampling for Inference in Probabilistic Graphical Models [#376]

Mohammad Maminur Islam, Khan Mohammad Al Farabi and Venugopal Deepak

11:20AM Probabilistic Matrix Factorization from Quantized Measurements [#379]

Giulio Bottegal and Johan A.K. Suykens

11:40AM Probabilistic Matching: Causal Inference under Measurement Errors [#493]

Fani Tsapeli, Peter Tino and Mirco Musolesi

12:00PM Bayesian Optimization for Conditional Hyperparameter Spaces [#510]

Julien-Charles Levesque, Audrey Durand, Christian Gagne and Robert Sabourin

Session deep2: Deep learning 2: theory

Monday, May 15, 11:00AM-12:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Jinglu Hu

11:00AM Unsupervised Deep Kernel for High Dimensional Data [#815]

Ying Xie, Linh Le and Jie Hao

11:20AM Margin Maximization for Robust Classification using Deep Learning [#898]

Alexander Matyasko and Chau Lap-Pui

11:40AM Variational methods for Conditional Multimodal Deep Learning [#125]

Gaurav Pandey and Ambedkar Dukkipati

12:00PM A Multilayer Gated Bilinear Classifier: from Optimizing a Deep Rectified Network to a Support Vector Machine [#178]

Weite Li and Jinglu Hu

Session theory 2: Theory 2

Monday, May 15, 11:00AM-12:20PM, Room: Parallel 6 (Room #5+6), Chair: George Cavalcanti

11:00AM Cooperative Learning: Decentralized Data Neural Network [#856]

Noah Lewis, Sergey Plis and Vince Calhoun

11:20AM On the Characterization of the Oracle for Dynamic Classifier Selection [#80]

Mariana A. Souza, George D. C. Cavalcanti, Rafael M. O. Cruz and Robert Sabourin

11:40AM Data Analysis in Weitzenbock Space [#240]

Stephen Marsland and Carole Twining

12:00PM Simple, Fast and Accurate Hyper-parameter Tuning in Gaussian-kernel SVM [#266]

Guangliang Chen, Wilson Florero-Salinas and Dan Li

Session Plen2: Plenary session 2: Hava Siegelmann

Monday, May 15, 1:30PM-2:30PM, Room: La Perouse, Chair: Chrisina Jayne

1:30PM How brain architecture leads to abstract thought

Hava Siegelmann

Panel Session Panel1: Cutting edge neural network research

Monday, May 15, 2:50PM-4:30PM, Room: La Perouse, Chair: Asim Roy

Special Session S01b: Advanced data analytics for large-scale complex data environment 1

Monday, May 15, 2:50PM-4:30PM, Room: Parallel 1 (Cook), Chair: Jia Wu

2:50PM An output-based knowledge transfer approach and its application in bladder cancer prediction [#167]

Guanjin Wang, Guangquan Zhang, Kup-Sze Choi, Kin-Man Lam and Jie Lu

3:10PM Relational Autoencoder for Feature Extraction [#292]

Qinxue Meng, Daniel Catchpoole, David Skillicorn and Paul Kennedy

3:30PM Metric learning for multi-instance classification with collapsed bags [#146]

Li Dewei, Xu Dongkuan, Tang Jingjing and Tian Yingjie

3:50PM First-order Causal Process for Causal Modelling with Instantaneous and Cross-temporal Relations [#524]

Fujin Zhu, Guangquan Zhang, Jie Lu and Donghua Zhu

4:10PM Universal Network Representation for Heterogeneous Information Networks [#236]

Ruiqi Hu, Celina Ping Yu, Sai-Fu Fung, Shirui Pan, Haishuai Wang and Guodong Long

Special Session S23: Machine learning methods applied to vision and robotics (MLMVR) 1

Monday, May 15, 2:50PM-4:30PM, Room: Parallel 2 (Room #1+13+14), Chair: Jose Garcia-Rodriguez

2:50PM Panoramic Background Modeling for PTZ Cameras with Competitive Learning Neural Networks [#564]

Karl Thurnhofer-Hemsi, Ezequiel Lopez-Rubio, Enrique Dominguez, Rafael Marcos Luque-Baena and Miguel A. Molina-Cabello

3:10PM Neural Controller for PTZ cameras based on nonpanoramic foreground detection [#648]

Miguel A. Molina-Cabello, Ezequiel Lopez-Rubio, Rafael Marcos Luque-Baena, Enrique Dominguez and Karl Thurnhofer-Hemsi

3:30PM LonchaNet: A Sliced-based CNN Architecture for Real-time 3D Object Recognition [#421]

Francisco Gomez-Donoso, Alberto Garcia-Garcia, Jose Garcia-Rodriguez, Sergio Orts-Escolano and Miguel Cazorla

3:50PM Guide-wire Detection Using Region Proposal Network for X-ray Image-guided Navigation [#237]

Li Wang, XiaoLiang Xie, GuiBin Bian, ZengGuang Hou, XiaoRan Cheng and Pusit Prasong

4:10PM A Recurrent Neural Network based Schaeffer Gesture Recognition System [#586]

Sergiu-Ovidiu Oprea, Alberto Garcia-Garcia, Jose Garcia-Rodriguez, Sergio Orts-Escolano and Miguel Cazorla

Session interf: Behavior and user interfaces

Monday, May 15, 2:50PM-4:30PM, Room: Parallel 3 (Room #2+11+12), Chair: Nojun Kwak

2:50PM Matching Video Net: Memory-based embedding for video action recognition [#173]

Daesik Kim, Myunggi Lee and Nojun Kwak

3:10PM Haptic Material Classification with a Multi-Channel Neural Network [#356]

Matthias Kerzel, Moaaz Ali, Hwei Geok Ng and Stefan Wermter

3:30PM Variation in Classification Accuracy with Number of Glimpses [#847]

Jayanta Dutta and Bonny Banerjee

3:50PM Fast On-Line Kernel Density Estimation for Active Object Localization [#368]

Anthony Rhodes, Max Quinn and Melanie Mitchell

4:10PM Human Action Recognition using Transfer Learning with Deep Representations [#196]

Allah Bux Sargano, Xiaofeng Wang, Plamen Angelov and Zulfiqar Habib

Session fac: Matrix factorization and feature discovery

Monday, May 15, 2:50PM-4:30PM, Room: Parallel 4 (Room #3+10+9), Chair: Xiaokai Wei

2:50PM Factorization for Projective and Metric Reconstruction via Truncated Nuclear Norm [#407]

Yang Lin, Li Yang, Zhouchen Lin, Tong Lin and Hongbin Zha

3:10PM Robust Nonnegative Matrix Factorization with Ordered Structure Constraints [#128]

Jing Wang, Feng Tian, Chang Hong Liu, Hongchuan Yu, Xiao Wang and Xianchao Tang

3:30PM Nonnegative Matrix Factorization with Adaptive Neighbors [#192]

Shudong Huang, Zenglin Xu and Fei Wang

3:50PM Multi-view Unsupervised Feature Selection by Cross-diffused Matrix Alignment [#854]

Xiaokai Wei, Bokai Cao and Philip S. Yu

4:10PM Distance Metric Learning with Eigenvalue Fine Tuning [#61]

Wang Wenqun, Zhang Ya and Hu Jinglu

Session deep3 : Deep learning 3: theory

Monday, May 15, 2:50PM-4:30PM, Room: Parallel 5 (Room #4+7+8), Chair: William Severa

2:50PM Deep Reward Shaping from Demonstrations [#403]

Ahmed Hussein, Eyad Elyan, Mohamed Medhat Gaber and Chrisina Jayne

3:10PM Mitigating Fooling with Competitive Overcomplete Output Layer Neural Networks [#343]

Navid Kardan and Kenneth Stanley

3:30PM Neurogenesis Deep Learning [#655]

Timothy Draelos, Nadine Miner, Christopher Lamb, Craig Vineyard, Kristofor Carlson, Conrad James, James Aimeone, William Severa and Jonathan Cox

3:50PM Fast Feedforward Non-parametric Deep Learning Network with Automatic Feature Extraction [#449]

Plamen Angelov, Xiaowei Gu and Jose Principe

4:10PM The Effects of Output Codes on Transfer Learning in a Deep Convolutional Neural Net [#531]

Steven Gutstein and Ethan Stump

Session theory3: Theory 3

Monday, May 15, 2:50PM-4:30PM, Room: Parallel 6 (Room #5+6), Chair: Ricardo Cerri

2:50PM A Sequential Simplex Algorithm for Automatic Data and Center Selecting Radial Basis Functions [#694]

Xiaofeng Ma, Tomojit Ghosh and Michael Kirby

3:10PM Dictionary Learning with Equiprobable Matching Pursuit [#339]

Fredrik Sandin and Sergio Martin-del-Campo

3:30PM A TCART-M - Tuned CARTesian-based Error Function for Multilabel Classification with the MLP [#283]

Jacek Mandziuk, Adam Zychowski and Lipo Wang

3:50PM A Two-Step Cascade Classification Method [#501]

Eunelson Silva, Alceu S. Britto, Luiz S. Oliveira, Fabricio Enembreck, Robert Sabourin and Alessandro Koerich

4:10PM Incorporating Instance Correlations in Multi-label Classification via Label-Space [#505]

Iuri Bonna Mauricio Abreu, Rafael Gomes Mantovani and Ricardo Cerri

Session recom: Recommender systems and graph analysis

Monday, May 15, 4:40PM-6:20PM, Room: Parallel 1 (Cook), Chair: Liqiang Wang

4:40PM Social Recommendation Using Euclidean Embedding [#467]

Wentao Li, Min Gao, Wenge Rong, Junhao Wen, Qingyu Xiong, Ruixi Jia and Tong Dou

5:00PM Music Recommendation via Heterogeneous Information Graph Embedding [#470]

Dongjing Wang, Guandong Xu and Shuiguang Deng

5:20PM Leveraging Deep Visual Features for Content-based Movie Recommender Systems [#583]

Ralph Rassweiler, Jonatas Wehrmann and Rodrigo Barros

5:40PM Graph-Boosted Convolutional Neural Networks for Semantic Segmentation [#60]

Guangzhen Liu, Peng Han, Yulei Niu, Wenwu Yuan, Zhiwu Lu and Ji-Rong Wen

6:00PM Link Prediction by Exploiting Network Formation Games in Exchangeable Graphs [#212]

Liqiang Wang, Yafang Wang, Bin Liu, Lirong He, Shijun Liu, Gerard de Melo and Zenglin Xu

Special Session S06: Biologically inspired neural networks and learning systems for robotics

Monday, May 15, 4:40PM-6:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Chaomin Luo

4:40PM Teaching Emotion Expressions to a Human Companion Robot using Deep Neural Architectures [#616]

Nikhil Churamani, Matthias Kerzel, Erik Strahl, Pablo Barros and Stefan Wermter

5:00PM A Self-Driving Robot Using Deep Convolutional Neural Networks on Neuromorphic Hardware [#363]

Tiffany Hwu, Jacob Isbell, Nicolas Oros and Jeffrey Krichmar

5:20PM Emergence of Tool Construction in an Articulated Limb Controlled by Evolved Neural Circuits [#918]

Randall Reams and Yoonsuck Choe

5:40PM Neural Based Obstacle Avoidance with CPG Controlled Hexapod Walking Robot [#722]

Petr Cizek, Pavel Milicka and Jan Faigl

6:00PM Predictive Coding for Dynamic Vision: Development of Functional Hierarchy in a Multiple Spatio-Temporal Scales RNN Model [#119]

Minkyu Choi and Jun Tani

Session sensory: Sensory processing: Vision, audition, and olfaction

Monday, May 15, 4:40PM-6:20PM, Room: Parallel 3 (Room #2+11+12), Chair: A. Ravishankar Rao

4:40PM Visual Entity Linking [#788]

Neha Tilak, Sunil Gandhi and Tim Oates

5:00PM Simulations Support the Simple Hypothesis that Persistent Coupling of Electrochemical Activity in Recurrent Network Neurons Is an Objective Signature of Visual Object Unity [#78]

Raymond Pavloski and Charles Lamb

5:20PM Audio Visual Speech Recognition With Multimodal Recurrent Neural Networks [#259]

Weijiang Feng, Naiyang Guan, Yuan Li, Xiang Zhang and Zhigang Luo

5:40PM Perception Space Analysis: From Color Vision to Odor Perception [#585]

Amir Madany Mamlouk, Martin Haker and Thomas Martinetz

6:00PM The modulation of synchronization by tuning functions and its effect on multi-sensory perception [#382]

A. Ravishankar Rao

Session syst: Software and systems

Monday, May 15, 4:40PM-6:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Christina Kluever

4:40PM Using Regularized Fisher Discriminant Analysis To Improve The Performance Of Gaussian Supervector In Session And Device Identification [#313]

Yuechi Jiang and Frank H. F. Leung

5:00PM Machine Learning Approaches to Predict Learning Outcomes in Massive Open Online Courses [#332]

Raghad Al-Shabandar, Abir Hussain, Andy Laws, Robert Keight, Janet Lunn and Naeem Rad

5:20PM Analyzing and Predicting Concurrency Bugs in Open Source Systems [#361]

Paolo Ciancarini, Francesco Poggi, Davide Rossi and Alberto Sillitti

5:40PM A Self-Enforcing Neural Network as Decision Support System for Air Traffic Control based on probabilistic Weather Forecasts [#392]

Christina Kluever, Juergen Kluever and Dirk Zinkhan

6:00PM Structure Embedding for Knowledge Base Completion and Analytics [#560]

Zili Zhou, Guandong Xu, Wenhao Zhu, Jinyan Li and Wu Zhang

Session deep4: Deep learning 4: Applications

Monday, May 15, 4:40PM-6:20PM, Room: Parallel 5 (Room #4+7+8), Chair: David Fagan

4:40PM Deep Learning based Frameworks for Image Super-Resolution and Noise-Resilient Super-Resolution [#307]

Manoj Sharma, Santanu Chaudhury and Brejesh Lall

5:00PM CAS-CNN: A Deep Convolutional Neural Network for Image Compression Artifact Suppression [#391]

Lukas Cavigelli, Pascal Hager and Luca Benini

5:20PM Learning of Binocular Fixations using Anomaly Detection with Deep Reinforcement Learning [#639]

Francois de La Bourdonnaye, Celine Teuliere, Jochen Triesch and Thierry Chateau

5:40PM Representations in Deep Neural Networks for Image Processing [#657]

Roman Ilin, Thomas Watson and Robert Kozma

6:00PM Deep Learning through Evolution: A Hybrid Approach to Scheduling in a Dynamic Environment [#302]

David Fagan, Michael Fenton, David Lynch, Stepan Kucera, Holger Claussen and Michael O'Neill

Session theory4: Theory 4

Monday, May 15, 4:40PM-6:20PM, Room: Parallel 6 (Room #5+6), Chair: Calin-Adrian Popa

4:40PM Octonion-Valued Bidirectional Associative Memories [#43]

Calin-Adrian Popa

5:00PM Hyperellipsoidal Neuron [#58]

Carlos Villasenor, Nancy Arana-Daniel, Alma Y. Alanis and Carlos Lopez-Franco

5:20PM Dendrite Ellipsoidal Neuron [#453]

Fernando Arce, Erik Zamora and Humberto Sossa

5:40PM Neuro-inspired Quantum Associative Memory Using Adiabatic Hamiltonian Evolution [#814]

Yoshihiro Osakabe, Shigeo Sato, Hisanao Akima, Mitsunaga Kinjo and Masao Sakuraba

6:00PM Matrix Variate RBM Model with Gaussian Distributions [#320]

Simeng Liu, Yanfeng Sun, Yongli Hu, Junbin Gao, Fujiao Ju and Baocai Yin

Plenary Poster Session P1: Poster session #1

Monday, May 15, 7:30PM-9:00PM, Room: Arteaga, Chair: Richard Duro

- P101 Complex-Valued Convolutional Neural Networks for Real-Valued Image Classification [#38]
Calin-Adrian Popa
- P102 Evolutionary Optimization of On-line Multilayer Perceptron for Similarity-Based Access Control [#86]
Andrii Shalaginov
- P103 Modeling Direction Selective Visual Neural Network with ON and OFF Pathways for Extracting Motion Cues from Cluttered Background [#228]
Qinbing Fu and Shigang Yue
- P104 A dynamic neural controller for adaptive optimal control of permanent magnet DC motors [#437]
Yinyan Zhang, Shuai Li, Xin Luo and Ming-sheng Shang
- P105 LSTM with Working Memory [#222]
Andrew Pulver and Siwei Lyu
- P106 Critical echo state network dynamics by means of Fisher information maximization [#936]
Filippo Maria Bianchi, Lorenzo Livi, Robert Jenssen and Cesare Alippi
- P107 Learning to Reproduce Stochastic Time Series Using Stochastic LSTM [#416]
Sadaf Gulshad, Dick Sigmund and Jong-Hwan Kim
- P108 Parameter Compression of Recurrent Neural Networks and Degradation of Short-term Memory [#663]
Jonathan Cox
- P109 Different-Level Simultaneous Minimization Scheme for Fault Tolerance of Redundant Manipulator Aided with Discrete-Time Recurrent Neural Network [#441]
Mei Liu, Xiaogang Yan, Dongsheng Guo, Lin Xiao, Bolin Liao and Long Jin
- P110 Convolutional Bi-Directional LSTM for Detecting Offensive Query Suggestions in Web Search [#643]
Harish Yenala, Manoj Chinnakotla and Jay Goyal
- P111 Improving Learning Efficiency of Recurrent Neural Network through Adjusting Weights of All Layers in a Biologically-inspired Framework [#783]
Huang Xiao, Wu Wei, Yin Peijie and Qiao Hong
- P112 Neural Control for a Microgrid [#548]
Martin de Jesus Loza-Lopez, Tania Beatriz Lopez-Garcia, Riemann Ruiz-Cruz and Edgar N. Sanchez
- P113 Empirical Analysis of the Necessary and Sufficient Conditions of the Echo State Property [#844]
Sebastian Basterrech
- P114 Fast Deep Neural Network based on intelligent dropout and layer skipping [#728]
Asma Eladel, Ridha Ejbali, Chokri Ben Amar and Mourad Zaied
- P115 A Study on Visual Interpretation of Network In Network [#810]
Suzuki Satoshi and Shouno Hayaru
- P116 Asymmetric Stacked Autoencoder [#387]
Aditay Tripathi and Angshul Majumdar
- P117 Deep Learning based Image Description Generation [#225]

Philip Kinghorn, Li Zhang and Ling Shao

P118 Deep Neural Network Bottleneck Features for Bird Species Verification [#96]

Jinming Zhao, Yanyan Xu, Dengfeng Ke and Kaile Su

P119 Sequence-to-sequence Prediction of Personal Computer Software by Recurrent Neural Network [#344]

Qichuan Yang, Zhiqiang He, Fujiang Ge and Yang Zhang

P120 Image Aesthetics Assessment using Deep Chatterjee's Machine [#433]

Zhangyang Wang, Ding Liu, Shiyu Chang, Florin Dolcos, Diane Beck and Thomas Huang

P121 Fusing Attention with Visual Question Answering [#677]

Ryan Burt, Mihael Cudic and Jose Principe

P122 A Novel Constructive Algorithm for CANet [#811]

Danilo Pereira and Bruno Fernandes

P123 A Penalized Maximum Likelihood Approach to the Adaptive Learning of the Spatial Pooler Permanence [#780]

Ernest Fokoue, Lakshmi Ravi and Dhireesha Kudithipudi

P124 Integrating Extra Knowledge into Word Embedding Models Via Graph Regularization [#807]

Yuan Ling, Yuan An, Mengwen Liu, Sadid Hasan, Yetian Fan and Xiaohua Hu

P125 Risk-Averse Trees for Learning from Logged Bandit Feedback [#329]

Francesco Trovo', Stefano Paladino, Paolo Simone, Marcello Restelli and Nicola Gatti

P126 Pruning Optimum-Path Forest Ensembles Using Quaternion-based Optimization [#50]

Silas Fernandes and Joao Papa

P127 Groupwise Bayesian Dimension Reduction [#255]

Bo Zhang, Liwei Wang, Yan Song and Chul Sung

P128 A Novel Clustering Oriented Closeness Measure Based on Neighborhood Chain [#140]

Shaoyi Liang, Deqiang Han, Lei Zhang and Qinke Peng

P129 Selection of Learning Experts [#620]

Robin Allesiardo and Raphael Feraud

P130 Robust Semi-supervised Concept Factorization [#139]

Wei Yan, Bob Zhang and Sihan Ma

P131 Class Representative Autoencoder for Low Resolution Multi-Spectral Gender Classification [#859]

Maneet Singh, Shruti Nagpal, Richa Singh and Mayank Vatsa

P132 Online Incremental Supervised Growing Neural Gas [#132]

Felipe Duque-Belfort, Hansenclever F. Bassani and Aluizio F. R. Araujo

P133 Online Compressed Robust PCA [#69]

Pingbo Pan, Jiashi Feng, Ling Chen and Yi Yang

P134 Sharing deep generative representation for perceived image reconstruction from human brain activity [#205]

Changde Du, Changying Du and Huiguang He

- P135 Colorness Index Strategy for Pixel Fire Segmentation [#406]
Bruno Souza, Jacques Facon and David Menotti
- P136 Large-Scale Image Classification Using Fast SVM with Deep Quasi-Linear Kernel [#118]
Peifeng Liang, Weite Li, Donghang Liu and Jinglu Hu
- P137 Bias Corrected Regularization Kernel Network and its Applications [#201]
Qiang Wu
- P138 m-Power Regularized Least Squares Regression [#217]
Julien Audiffren and Hachem Kadri
- P139 Clustering by Support Vector Manifold Learning [#715]
Marcin Orchel
- P140 Compress-Filtering and Transfer-Expanding of Data Set for Short-Term Load Forecasting [#11]
Zeng Pan, Wu Di and Jin Min
- P141 Unconstrained Large Margin Distribution Machines [#399]
Shigeo Abe
- P142 Multi-View LS-SVM Regression for Black-Box Temperature Prediction in Weather Forecasting [#317]
Lynn Houthuys, Zahra Karevan and Johan A. K. Suykens
- P143 Overdispersed Variational Autoencoders [#572]
Harshil Shah, David Barber and Aleksandar Botev
- P144 Efficient Global Network Learning from Local Reconstructions [#424]
Severine Affeldt, Nataliya Sokolovska, Edi Prifti and Jean-Daniel Zucker
- P145 Class-wise Deep Dictionary Learning [#49]
Singhal Vanika, Khurana Prerna and Majumdar Angshul
- P146 Neural Net-Based and Safety-Oriented Visual Analytics for Time-Spatial Data [#233]
Zhenghao Chen, Jianlong Zhou, Xiuying Wang, Jeremy Swanson, Fang Chen and Dagan Feng
- P147 Class-Specific Kernel Discriminant Analysis based on Cholesky Decomposition [#53]
Alexandros Iosifidis and Moncef Gabbouj
- P148 Link Prediction Based Hybrid Recommendation System Using User-Page Preference Graphs [#895]
Mohammad Sharif and Raghavan Vijay
- P149 Optimize Collapsed Gibbs Sampling for Biterm Topic Model by Alias Method [#97]
Xingwei He and Hua Xu
- P150 Modularity-Dependent Modulation of Synchronized Bursting Activity in Cultured Neuronal Network Models [#573]
Satoshi Moriya, Hideaki Yamamoto, Hisanao Akima, Ayumi Hirano-Iwata, Michio Niwano, Shigeru Kubota and Shigeo Sato
- P151 Synchronization analysis for complex networks with interval delay via non-fragile pinning control [#446]
Dawei Gong, Zhiwen Zhang, Xiaolin Dai, Jinliang Song and Bonan Huang

P152 Classification Based on Neuroimaging Data by Tensor Boosting [#336]

Bo Zhang, Hua Zhou, Liwei Wang and Chul Sung

P153 Programming the Mind and Decrypting the Universe—A Bipolar Quantum-Neuro-Fuzzy Associative Memory Model for Quantum Cognition and Quantum Intelligence [#251]

Wen-Ran Zhang

P154 The neural control of movement must contend with trajectory-specific and nonlinearly distorted manifolds of afferent muscle spindle activity [#858]

Jasmine Berry, Robert Ritter III, Akira Nagamori and Francisco Valero-Cuevas

P155 Separating Inference from Feature Learning in Deep Unsupervised Visual Saliency Estimation [#871]

Bruno Taille and Michael Garcia Ortiz

P156 Selection of Stable Features for Modeling 4-D Affective Space from EEG Recording [#800]

Rakib Al-Fahad, Mohammed Yeasin, Anam ASM Iftakhar and Bahareh Elahian

P157 A CMOS Chaotic Boltzmann Machine Circuit and Three-neuron Network Operation [#555]

Masatoshi Yamaguchi, Hakaru Tamukoh, Hideyuki Suzuki and Takashi Morie

P158 Noisy Neuromorphic Neurons with RPG On-chip Noise Source [#836]

Kun Yue and Alice Parker

P159 Hardware-Driven Nonlinear Activation for Stochastic Computing Based Deep Convolutional Neural Networks [#202]

Ji Li, Zihao Yuan, Zhe Li, Caiwen Ding, Ao Ren, Qinru Qiu, Jeffrey Draper and Yanzhi Wang

P160 Opposition-based Particle Swarm Optimization Algorithm with Self-adaptive Strategy [#68]

Xuehan Qin and Yi Xu

P161 Deep learning based nonlinear principal component analysis for industrial process fault detection [#14]

Xiaogang Deng, Xuemin Tian, Sheng Chen and Chris J. Harris

P162 Predicted-Occupancy Grids for Vehicle Safety Applications based on Autoencoders and the Random Forest Algorithm [#622]

Parthasarathy Nadarajan, Michael Botsch and Sebastian Sardina

P163 Semantic Segmentation of Microscopic Images of Haematoxylin and Eosin Stained Prostatic Tissue using CNN [#364]

Johan Isaksson, Ida Arvidsson, Kalle Astrom and Anders Heyden

P164 Robust Wake-Up-Word Speech Recognition based on Deep Neural Network [#511]

Fengpei Ge and Yonghong Yan

P165 Improved Speaker Recognition System for Stressed Speech using Deep Neural Networks [#593]

Sri Harsha Dumpala and Sunil Kumar Kopparapu

P166 Incorporating Message Embedding into Co-Factor Matrix Factorization for Retweeting Prediction [#569]

Can Wang, Qiudan Li, Lei Wang and Dajun Daniel Zeng

P167 Classifying Commit Messages: A Case Study in Resampling Techniques [#763]

SeyedHamid Shekarfroush, Robert Green and Robert Dyer

- P168 An Analysis of Factors Predicting Memory Loss in Alzheimer's Disease Prevention [#82]
Mingzhao Hu, Yifei Zhang and N. Maritza Dowling
- P169 A Generative Model with Hypergraph Regularizers for Protein Function Prediction [#84]
Shaokai Wang, Xutao Li, Yunming Ye, Yan Li, Xiaohui Huang and Xiaolin Du
- P170 Wavelet Coherence-based clustering of EEG signals to estimate the brain connectivity in absence epileptic patients [#631]
Cosimo Ieracitano, Nadia Mammone, Jonas Duun-Henriksen, Troels W. Kjaer, Fabio La Foresta and Francesco C. Morabito
- P171 Image Pseudo Tag Generation with Deep Boltzmann Machine and Topic-Concept Similarity Map [#724]
Satoru Ishikawa, Jorma Laaksonen and Juha Karhunen
- P172 Online Peak Detection in Photoplethysmogram Signals Using Sequential Learning Algorithm [#253]
B.N. Sumukha, R. Chandan Kumar, Skanda S. Bharadwaj and Koshy George
- P173 Cross-Validated Smooth Multi-Instance Learning [#784]
Dayuan Li, Lin Zhu, Wenzheng Bao, Fei Cheng, Yi Ren and De-Shuang Huang
- P174 A Large-Scale Multi-Pose 3D-RGB Object Database [#463]
Fabian Sachara, Kopinski Thomas, Finn Handmann, Nico Cremer, Alexander Gepperth and Uwe Handmann
- P175 Design of a Hierarchical-Clustering CMAC-PID Controller [#295]
Yuntao Liao, Kazushige Koiwai and Toru Yamamoto
- P176 Hamiltonian-driven Adaptive Dynamic Programming for Nonlinear Discrete-Time Dynamic Systems [#246]
Yongliang Yang, Donald Wunsch and Yixin Yin
- P177 Near-Space Aerospace Vehicles Attitude Control Based on Adaptive Dynamic Programming and Sliding Mode Control [#254]
Yufei Tang, Chaoxu Mu and Haibo He
- P178 Exploring Quantization Error to Improve Human Action Classification [#688]
Raquel Almeida, Zenilton Patrocinio Jr and Silvio Guimaraes
- P179 Fast Digital Watermarking of Uncompressed Colored Images using Bidirectional Extreme Learning Machine [#429]
Ankit Rajpal, Anurag Mishra and Rajni Bala
- P180 Comparison of EMD, MEMD and 2T-EMD by analyzing standard artificial signals and EEG [#530]
Yao Miao and Jianting Cao
- P181 Towards Using Visual Attributes to Infer Image Sentiment Of Social Events [#459]
Unaiza Ahsan, Munmun De Choudhury and Irfan Essa
- P182 Restricted Boltzmann Machine Based Stock Market Trend Prediction [#912]
Qiubin Liang, Wenge Rong, Jiayi Zhang, Jingshuang Liu and Zhang Xiong
- P183 From Ranking and Clustering of Evolving Networks to Patent Citation Analysis [#462]
Hayley Beltz, Aniko Fulop, Raoul Wadhwa and Peter Erdi
- P184 Knowledge-based Document Embedding for Cross-Domain Text Classification [#604]

Yiming Li, Baogang Wei, Liang Yao, Hui Chen and Zherong Li

P185 Mining E-Commercial Data: A Text-Rich Heterogeneous Network Embedding Approach [#849]

Weizheng Chen, Chi Liu, Jun Yin, Hongfei Yan and Yan Zhang

P186 Solar Power Prediction with Data Source Weighted Nearest Neighbors [#468]

Zheng Wang and Irena Koprinska

P187 Stock Market's Price Movement Prediction With LSTM Neural Networks [#787]

David Nelson, Adriano Pereira and Renato Oliveira

P188 Multiscale Hebbian Neural Network for Cyber Threat Detection [#832]

Sana Siddiqui, Muhammad Salman Khan and Ken Ferens

P189 On the Robustness of Machine Learning Based Malware Detection Algorithms [#479]

Weiwei Hu and Ying Tan

P190 An Infinite Classification RBM Model for Radar HRRP Recognition [#117]

Xuan Peng, Xunzhang Gao and Xiang Li

P191 FNN Approximation-Based Adaptive Control for Suppressing Chatter in Nonlinear Milling with Piezo-Actuators [#630]

Xiaoli Liu and Chun-Yi Su

P192 Towards Computer Vision Based Ancient Coin Recognition in the Wild – Automatic Reliable Image Preprocessing and Normalization [#519]

Brandon Conn and Ognjen Arandjelovic

P193 Impact of Struck-out Text on Writer Identification [#647]

Chandranath Adak, Bidyut Baran Chaudhuri and Michael Blumenstein

P194 Neural Network Nonlinear Plant Identification as a Tool in Intelligent Controller Design [#737]

Dinart Braga, Ricardo Tanscheit and Marley Vellasco

P195 Dynamic Event Monitoring Using Unsupervised Feature Learning Towards Smart Grid Big Data [#833]

Yufei Tang and Jun Yang

P196 Balancing Indoor Thermal Comfort and Energy Consumptions of Air-Conditioning and Mechanical Ventilation Systems via Sparse Firefly Algorithm Optimization [#535]

Deqing Zhai and Yeng Chai Soh

P197 A study for ELM-based recognition of fold structure in the remote sensing image [#15]

Jiehong Wu and Liangkai Zou

P198 Predicting Public Bicycle Rental Number using Multi-source Data [#154]

Fei Lin, Shihua Wang, Jian Jiang, Weidi Fan and Yong Sun

P199 Multi-class Active Learning: A Hybrid Informative and Representative Criterion Inspired Approach [#162]

Zengmao Wang, Bo Du and Lefei Zhang

P200 Incremental Extraction of High-Dimensional Equivalence Structures [#230]

Seiya Satoh and Hiroshi Yamakawa

- P201 A reputation-enhanced model for trust-based collaborative filtering recommender system [#239]
Shen Linshan, Xiao Wei, Yang Xing and Cui Lin
- P202 CPMF: A Collective Pairwise Matrix Factorization Model for Upcoming Event Recommendation [#67]
Chun-Yi Liu, Chuan Zhou, Jia Wu, Hongtao Xie, Yue Hu and Li Guo
- P203 A Multi-object Optimization Model of Electricity Fee Payment Site Selection Based on Multiple Payment Methods [#916]
Zhang Xinyi, Hui Guotao, Gao Qiang, Ren Xiaoya, Bi Yingjiao, Zhou Bowen and Yang Dongsheng
- P204 A Convolutional Neural Network Approach for Acoustic Scene Classification [#600]
Michele Valenti, Aleksandr Diment, Giambattista Parascandolo, Stefano Squartini and Tuomas Virtanen
- P205 Towards Intoxicated Speech Recognition [#734]
Zixing Zhang, Felix Weninger, Martin Woellmer, Jing Han and Bjoern Schuller
- P206 Seeking the SuperStar: Automatic Assessment of Perceived Singing Quality [#448]
Johanna Boehm, Florian Eyben, Maximilian Schmitt, Harald Kosch and Bjoern Schuller
- P207 Demystifying Numenta Anomaly Benchmark [#929]
Nidhi Singh and Craig Olinsky
- P208 Time Series Classification from Scratch with Deep Neural Networks: A Strong Baseline [#542]
Zhiguang Wang, Weizhong Yan and Tim Oates
- P209 Stacked Deep Convolutional Auto-Encoders for Emotion Recognition from Facial Expressions [#678]
Ariel Ruiz-Garcia, Mark Elshaw, Abdulrahman Altahhan and Vasile Palade
- P210 ChaLearn Looking at People: Events and Resources [#345]
Sergio Escalera, Xavier Baro, Hugo Escalante and Isabelle Guyon
- P211 Signal Detection of MIMO-OFDM System Based on Auto Encoder and Extreme Learning Machine [#150]
Fei Long and Ou Weihua
- P212 An Improved Algorithm for Incremental Extreme Learning Machine [#288]
Shaojian Song, Weikang Xiang, Xiaofeng Lin, Shuai Li, Bin Liu and Yimin Yang
- P213 Benchmarking the Selection of the Hidden-layer Weights in Extreme Learning Machines [#401]
Enrique Romero
- P214 Adaptive Incremental Ensemble of Extreme Learning Machines for Fault Diagnosis in Induction Motors [#522]
Roosbeh Razavi-Far, Mehrdad Saif, Vasile Palade and Enrico Zio
- P215 Multi-Layer Neural Networks for Quality of Service oriented Server-State Classification in Cloud Servers [#580]
Yonghua Yin, Lan Wang and Erol Gelenbe
- P216 t-Distributed Stochastic Neighbor Embedding Spectral Clustering [#913]
Nicoleta Rogovschi, Jun Kitazono, Nistor Grozavu, Toshiaki Omori and Seiichi Ozawa
- P217 An exploratory analysis targeting diagnostic classification of AAC app usage patterns [#835]
Adham Atyabi, Beibin Li, Yeojin Amy Ahn, Minah Kim, Erin Barney and Frederick Shic

P218 An open-source framework for the interactive exploration of Big Data: applications in understanding health care [#389]

A. Ravishankar Rao and Daniel Clarke

P219 Machine learning models to search relevant genetic signatures in clinical context [#172]

Daniel Urda, Rafael Marcos Luque Baena, Noelia Sanchez, Leonardo Franco and Jose Manuel Jerez Aragonés

P220 A Novel Machine Learning Framework For Phenotype Prediction Based On Genome-Wide DNA Methylation Data [#619]

Vinay Karagod and Kaushik Sinha

P221 Exploring the consequences of distributed feature selection in DNA microarray data [#152]

Veronica Bolon-Canedo, Konstantinos Sechidis, Noelia Sanchez-Marono, Amparo Alonso-Betanzos and Gavin Brown

P222 Assessment of the repeatability in an automatic methodology for hyperemia grading in the bulbar conjunctiva [#41]

Luisa Sanchez Brea, Noelia Barreira Rodriguez, Antonio Mosquera Gonzalez and Katharine Evans

P223 Power infrastructure monitoring and damage detection using drone captured images [#899]

Ashley Varghese, Jayavardhana Gubbi, Hrishikesh Sharma and Balamuralidhar Purushothaman

P224 Towards Real-Time Robot Simulation on Uneven Terrain Using Neural Networks [#827]

Daniel Cook and Andrew Vardy

P225 Actions as Contexts [#837]

Xiang Wu and Juyang Weng

P226 Extremely Parallel Memristor Crossbar Architecture for Convolutional Neural Network Implementation [#819]

Chris Yakopcic, Zahangir Alom and Tarek Taha

P227 Methods for High Resolution Programming in Lithium Niobate Memristors for Neuromorphic Hardware [#923]

Chris Yakopcic, Shu Wang, Weisong Wang, Eunsung Shin, Guru Subramanyam and Tarek Taha

P228 Non-negative Pyramidal Neural Network for Parts-based Learning [#627]

Milla Ferro, Bruno Fernandes and Carmelo Bastos-Filho

P229 Performance Optimization of Echo State Networks Through Principal Neuron Reinforcement [#826]

Hsiao-Tien Fan, Wei Wang and Zhanpeng Jin

P230 Dynamic Island Model based on Spectral Clustering in Genetic Algorithm [#155]

Qinxue Meng, Jia Wu, John Ellis and Paul Kennedy

Session Plen3: Plenary session 3: Alex Graves

Tuesday, May 16, 8:00AM-9:00AM, Room: La Perouse, Chair: Barbara Hammer

8:00AM Frontiers in recurrent neural network research

Alex Graves

Special Session S09a: Concept drift, domain adaptation, and learning in dynamic environments 1

Tuesday, May 16, 9:20AM-10:40AM, Room: Parallel 1 (Cook), Chair: Giacomo Boracchi

9:20AM Uniform Histograms for Change Detection in Multivariate Data [#744]

Giacomo Boracchi, Cristiano Cervellera and Danilo Maccio

9:40AM LEVEL.IW: Learning Extreme Verification Latency with Importance Weighting [#850]

Mohammad Umer, Christopher Frederickson and Robi Polikar

10:00AM Label-Noise-Tolerant Classification for Streaming Data [#55]

Benoit Frenay and Barbara Hammer

10:20AM Transfer Learning in Classification based on Manifold Models and its Relation to Tangent Metric Learning [#489]

Sascha Saralajew and Thomas Villmann

Special Session S11: Data mining and knowledge discovery in cyberphysical systems

Tuesday, May 16, 9:20AM-10:40AM, Room: Parallel 2 (Room #1+13+14), Chair: Tang Bo

9:20AM NotiFi: A Ubiquitous WiFi-based Abnormal Activity Detection System [#400]

Dali Zhu, Na Pang, Gang Li and Shaowu Liu

9:40AM Policy Gradient Methods with Gaussian Process Modelling Acceleration [#120]

Dong Li, Dongbin Zhao, Qichao Zhang and Chaomin Luo

10:00AM Detecting changes at the sensor level in Cyber-Physical Systems: Methodology and Technological Implementation [#423]

Cesare Alippi, Viviana D'Alto, Mirko Falchetto, Danilo Pau and Manuel Roveri

10:20AM A Hybrid Machine Learning Approach to Automatic Plant Phenotyping for Smart Agriculture [#922]

So Yahata, Tetsu Onishi, Kanta Yamaguchi, Seiichi Ozawa, Jun Kitazono, Takenao Ohkawa, Takeshi Yoshida, Murakami Noriyuki and Hiroyuki Tsuji

Special Session S15a: Extreme learning machines

Tuesday, May 16, 9:20AM-10:40AM, Room: Parallel 3 (Room #2+11+12), Chair: Guang-Bin Huang

9:20AM A Theoretical Study of The Relationship Between An ELM Network and Its Subnetworks [#25]

Enmei Tu, Guanghao Zhang, Lily Rachmawati, Eshan Rajabally, Shangbo Mao and Guang-Bin Huang

9:40AM Regularized Training of the Extreme Learning Machine using the Conjugate Gradient Method [#773]

Philip de Chazal and Mark McDonnell

10:00AM Reconstruction of Bifurcation Diagrams Using an Extreme Learning Machine with a Pruning Algorithm [#166]

Yoshitaka Itoh and Masaharu Adachi

10:20AM A Low-Dimensional Vector Representation for Words using an Extreme Learning Machine [#731]

Paula Lauren, Guangzhi Qu, Guang-Bin Huang, Paul Watta and Amaury Lendasse

Session spike1: Spiking neurons: adaptation 1

Tuesday, May 16, 9:20AM-10:40AM, Room: Parallel 4 (Room #3+10+9), Chair: Timoleon Moraitis

9:20AM Fatiguing STDP: Learning from Spike-Timing Codes in the Presence of Rate Codes [#879]

Timoleon Moraitis, Abu Sebastian, Irem Boybat, Manuel Le Gallo, Tomas Tuma and Evangelos Eleftheriou

9:40AM Spike Timing-Dependent Conduction Delay Learning Model Classifying Spatio-Temporal Spike Patterns [#164]

Takashi Matsubara

10:00AM Unsupervised Learning of Event-Based Image Recordings using Spike-Timing-Dependent Plasticity [#290]

Laxmi Iyer and Arindam Basu

10:20AM Spike Timing Dependent Plasticity Based Enhanced Self-Learning for Efficient Pattern Recognition in Spiking Neural Networks [#719]

Gopalakrishnan Srinivasan, Sourjya Roy, Vijay Raghunathan and Kaushik Roy

Session deep5: Deep learning 5: Applications

Tuesday, May 16, 9:20AM-10:40AM, Room: Parallel 5 (Room #4+7+8), Chair: Jian Zhang

9:20AM Deep Learning Approach to Link Weight Prediction [#92]

Yuchen Hou and Lawrence Holder

9:40AM Deep Boltzmann Machines for Robust Fingerprint Spoofing Attack Detection [#223]

Gustavo Souza, Daniel Santos, Rafael Pires, Aparecido Marana and Joao Papa

10:00AM Classification of Android Apps and Malware Using Deep Neural Networks [#547]

Robin Nix and Jian Zhang

10:20AM Context Preference-based Deep Adaptive Resonance Theory: Integrating User Preferences into Episodic Memory Encoding and Retrieval [#305]

Dick Sigmund, Gyeong-Moon Park and Jong-Hwan Kim

Session theory5: Theory 5

Tuesday, May 16, 9:20AM-10:40AM, Room: Parallel 6 (Room #5+6), Chair: Michael Potter

9:20AM Neural Networks and the Search for a Quadratic Residue Detector [#447]

Michael Potter, Leon Reznik and Stanislaw Radziszowski

9:40AM Stochastic Diagonal Approximate Greatest Descent in Neural Networks [#568]

Hong Hui Tan, King Hann Lim and Hendra Gunawan Harno

10:00AM Nesterov's Accelerated Gradient and Momentum as approximations to Regularised Update Descent [#673]

Botev Aleksandar, Lever Guy and Barber David

10:20AM Structural adaptation for sparsely connected MLP using Newton's method [#830]

Parastoo Kheirkhah, Kanishka Tyagi, Son Nguyen and Michael T. Manry

Special Session S09b: Concept drift, domain adaptation, and learning in dynamic environments 2

Tuesday, May 16, 11:00AM-12:20PM, Room: Parallel 1 (Cook), Chair: Robi Polikar

11:00AM Incremental Learning with the Minimum Description Length Principle [#891]

Pierre-Alexandre Murena, Antoine Cornuejols and Jean-Louis Dessalles

11:20AM BLPA: Bayesian Learn-Predict-Adjust Method for Online Detection of Recurrent Changepoints [#774]

Alexandr Maslov, Mykola Pechenizkiy, Yulong Pei, Indre Zliobaite, Alexander ShklyaeV, Tommi Karkkainen and Jaakko Hollmen

11:40AM An Incremental Ensemble Classifier Learning by Means of a Rule-Based Accuracy and Diversity Comparison [#460]

Md Asafuddoula, Brijesh Verma and Mengjie Zhang

12:00PM Pattern Classification with Meta-Cognition and Online Sequential Learning Algorithm [#469]

Skanda S. Bharadwaj, R. Chandan Kumar, B. N. Sumukha and Koshy George

Special Session S30: Optimizing neural networks via evolutionary computation and swarm intelligence

Tuesday, May 16, 11:00AM-12:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Wei-Chang Yeh

11:00AM Investigation of Long Short-Term Memory Networks to Temperature Prediction for Permanent Magnet Synchronous Motors [#28]

Oliver Wallscheid, Wilhelm Kirchgaessner and Joachim Boecker

11:20AM Improved Performance of Face Recognition using CNN with Constrained Triplet Loss Layer [#408]

Henry Wing Fung Yeung, Jiayi Li and Yuk Ying Chung

11:40AM A Novel Stacked Denoising Autoencoder with Swarm Intelligence Optimization for Stock Index Prediction [#757]

Jiayi Li, Guang Liu, Henry Wing Fung Yeung, Yuk Ying Chung, Junfu Yin and Xiaoming Chen

12:00PM An evolutionary method for creating ensembles with adaptive size neural networks for predicting hourly solar irradiance [#260]

Raka Jovanovic, Luis Pomares, Yasir Mohieldeen, Daniel Perez-Astudillo and Dunia Bachour

Special Session S15b: Extreme learning machines

Tuesday, May 16, 11:00AM-12:20PM, Room: Parallel 3 (Room #2+11+12), Chair: Erik Cambria

11:00AM Semi-supervised Convolutional Extreme Learning Machine [#776]

Mahmood Yousefi-Azar and Mark D. McDonnell

11:20AM Objective Cost-Sensitive-Boosting-WELM for Handling Multi Class Imbalance Problem [#582]

Liu Zhen, Tang Deyu, Li Jincheng and Wang Ruoyu

11:40AM Online Recurrent Extreme Learning Machine and its Application to Time-series Prediction [#880]

Jin-Man Park and Jong-Hwan Kim

12:00PM Extreme Learning Machines to Approximate Low Dimensional Spaces for Helicopter Load Signal and Fatigue Life Estimation [#508]

Julio J. Valdes, Catherine Cheung and Alejandro Lehman-Rubio

Session spike2: Spiking neurons: adaptaion 2

Tuesday, May 16, 11:00AM-12:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Meghan Galiardi

11:00AM Stable Spike-Timing Dependent Plasticity Rule for Multilayer Unsupervised and Supervised Learning [#754]

Amar Shrestha, Khadeer Ahmed, Yanzhi Wang and Qinru Qiu

11:20AM Calcium-Modulated Supervised Spike-Timing-Dependent Plasticity for Readout Training and Sparsification of the Liquid State Machine [#901]

Yingyezhe Jin and Peng Li

11:40AM Optimization-based Computation with Spiking Neurons [#194]

Stephen Verzi, Craig Vineyard, Eric Vugrin, Meghan Galiardi, Conrad James and James Aimone

12:00PM Multi-Layer Unsupervised Learning in a Spiking Convolutional Neural Network [#245]

Amirhossein Tavanaei and Anthony Maida

Session deep6: Deep learning 6: Applications

Tuesday, May 16, 11:00AM-12:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Jie Liu

11:00AM Action Unit Selective Feature Maps in Deep Networks for Facial Expression Recognition [#628]

Yuqian Zhou and Bertram Shi

11:20AM How to Get Pavement Distress Detection Ready for Deep Learning? A Systematic Approach [#660]

Markus Eisenbach, Ronny Stricker, Daniel Seichter, Karl Amende, Klaus Debes, Maximilian Sesselmann, Dirk Ebersbach, Ulrike Stoeckert and Horst-Michael Gross

11:40AM Deep Neural Networks for Kitchen Activity Recognition [#723]

Juarez Monteiro, Roger Granada, Rodrigo Barros and Felipe Meneguzzi

12:00PM Deep Convolutional Neural Networks for Pedestrian Detection with Skip Pooling [#491]

Jie Liu, Xingkun Gao, Nianyuan Bao, Jie Tang and Gangshan Wu

Session theory6: Theory 6

Tuesday, May 16, 11:00AM-12:20PM, Room: Parallel 6 (Room #5+6), Chair: Ulf Johansson

11:00AM Balanced Self-Paced Learning with Feature Corruption [#270]

Yazhou Ren, Peng Zhao, Zenglin Xu and Dezhong Yao

11:20AM Model-Agnostic Nonconformity Functions for Conformal Classification [#485]

Ulf Johansson, Henrik Linusson, Tuve Lofstrom and Henrik Bostrom

11:40AM DropIn: Making Reservoir Computing Neural Networks Robust to Missing Inputs by Dropout [#629]

Davide Bacciu, Francesco Crecchi and Davide Morelli

12:00PM Information-Theoretic Dataset Selection for Fast Kernel Learning [#598]

Antonio Paiva

Session Plen4: Plenary session 4: Paul Werbos

Tuesday, May 16, 1:30PM-2:30PM, Room: La Perouse, Chair: Robert Kozma

1:30PM Backpropagation in the Brain and More Advanced Learning Systems

Paul Werbos

Panel Session Panel2: Cybersecurity Intelligence

Tuesday, May 16, 2:50PM-4:30PM, Room: La Perouse, Chair: Catherine Huang

Special Session S12+29: Datastream Mining

Tuesday, May 16, 2:50PM-4:30PM, Room: Parallel 1 (Cook), Chair: Ru Xui; Mahardhika Pratama

2:50PM Power Plant Performance Modeling with Concept Drift [#640]

Rui Xu, Yunwen Xu and WeiZhong Yan

3:10PM Concept Drift Learning with Alternating Learners [#509]

Yunwen Xu, Rui Xu, Weizhong Yan and Paul Ardis

3:30PM Parametric System Identification Using Deep Convolutional Neural Networks [#745]

Sahika Genc

3:50PM Online Query by Committee for Active Learning from Drifting Data Streams [#860]

Bartosz Krawczyk and Michal Wozniak

4:10PM Sub-Event Detection from Tweets [#735]

Satya Katragadda, Ryan Benton and Vijay Raghavan

Session lang: Natural language processing

Tuesday, May 16, 2:50PM-4:30PM, Room: Parallel 2 (Room #1+13+14), Chair: Minho Lee

2:50PM Symbolic Manipulation Based on Deep Neural Networks and its Application to Axiom Discovery [#20]

Cheng-Hao Cai, Dengfeng Ke, Yanyan Xu and Kaile Su

3:10PM Significance of neural phonotactic models for large-scale spoken language identification [#169]

Brij Mohan Lal Srivastava, Hari Krishna Vydana, Anil Kumar Vuppala and Manish Shrivastava

3:30PM Temporal Hierarchies in Multilayer Gated Recurrent Neural Networks for Language Models [#861]

Dennis Singh Moirangthem and Minho Lee

3:50PM Convolution Neural Network Based Syntactic and Semantic Aware Paraphrase Identification [#129]

Xiang Zhang, Wenge Rong, Jingshuang Liu, Chuan Tian and Zhang Xiong

4:10PM Alleviating Overfitting for Polysemous Words for Word Representation Estimation Using Lexicons [#562]

Yuanzhi Ke and Masafumi Hagiwara

Special Session S32a: Reservoir computing in hardware 1

Tuesday, May 16, 2:50PM-4:30PM, Room: Parallel 3 (Room #2+11+12), Chair: Cory Merkel

2:50PM Hardware Implementation of Echo State Networks using Memristor Double Crossbar Arrays [#820]

Amr M. Hassan, Hai (Helen) Li and Yiran Chen

3:10PM Reservoir Computing in materio: A Computational Framework for in materio Computing [#304]

Matthew Dale, Susan Stepney, Martin Trefzer and Julian Miller

3:30PM Design of a Time Delay Reservoir Using Stochastic Logic: A Feasibility Study [#708]

Cory Merkel

3:50PM Structure Optimization of Dynamic Reservoir Ensemble Using Genetic Algorithm [#822]

Wei Wang, Hsiao-Tien Fan and Zhanpeng Jin

4:10PM Linear Dynamical Based Models for Sequential Domains [#738]

Luca Pasa, Alessandro Sperduti and Peter Tino

Session spike3: Spiking neuron: hardware

Tuesday, May 16, 2:50PM-4:30PM, Room: Parallel 4 (Room #3+10+9), Chair: Johannes Schemmel

2:50PM Robustness from structure: Inference with hierarchical spiking networks on analog neuromorphic hardware [#695]

Mihai A. Petrovici, Anna Schroeder, Oliver Breitwieser, Andreas Gruebl, Johannes Schemmel and Karlheinz Meier

3:10PM An Accelerated Analog Neuromorphic Hardware System Emulating NMDA- and Calcium-Based Non-Linear Dendrites [#621]

Johannes Schemmel, Laura Kriener, Paul Mueller and Karlheinz Meier

3:30PM Neuromorphic Hardware In The Loop: Training a Deep Spiking Network on the BrainScaleS Wafer-Scale System [#730]

Sebastian Schmitt, Johann Klaehn, Guillaume Bellec, Andreas Gruebl, Maurice Guettler, Andreas Hartel, Stephan Hartmann, Dan Husmann, Kai Husmann, Vitali Karasenko, Mitja Kleider, Christoph Koke, Christian Mauch, Eric Mueller, Paul Mueller, Johannes Partzsch, Mihai A. Petrovici, Stefan Schiefer, Stefan Scholze, Bernhard Vogginger, Robert Legenstein, Wolfgang Maass, Christian Mayr, Johannes Schemmel and Karlheinz Meier

3:50PM Compositional Neural-Network Modeling of Complex Analog Circuits [#420]

Ramin M. Hasani, Dieter Haerle, Christian F. Baumgartner, Alessio R. Lomuscio and Radu Grosu

4:10PM Navigating Mobile Robots to Target in Near Shortest Time using Reinforcement Learning with Spiking Neural Networks [#438]

Amarnath Mahadevuni and Peng Li

Session deep7: Deep learning 7: Applications

Tuesday, May 16, 2:50PM-4:30PM, Room: Parallel 5 (Room #4+7+8), Chair: Rodrigo Barros

2:50PM Scalable Deep Traffic Flow Neural Networks for Urban Traffic Congestion Prediction [#841]

Mohammadhani Fouladgar, Mostafa Parchami, Ramez Elmasri and Amir Ghaderi

3:10PM Deep Learning of Texture and Structural Features for Multiclass Alzheimer's Disease Classification [#686]

Chester Dolph, Mahbubul Alam, Zeina Shboul, Manar Samad and Khan Iftekharuddin

3:30PM Virtual Guide Dog: An Application to Support Visually-Impaired People through Deep Convolutional Neural Networks [#696]

Juarez Monteiro, Joao Paulo Aires, Roger Granada, Rodrigo Barros and Felipe Meneguzzi

3:50PM Vertex Reconstruction of Neutrino Interactions using Deep Learning [#739]

Adam Terwilliger, Gabriel Perdue, David Isele, Robert Patton and Steven Young

4:10PM Learning Deep Representations with Diode Loss for Quantization-based Similarity Search [#46]

Shicong Liu and Hongtao Lu

Session theory7: Theory 7

Tuesday, May 16, 2:50PM-4:30PM, Room: Parallel 6 (Room #5+6), Chair: Tharun Reddy

2:50PM Using Information Fractal Dimension as Temperature in Restricted Boltzmann Machine [#821]

Muhammad Salman Khan, Sana Siddiqui and Ken Ferens

3:10PM HJB Equation Based Learning Scheme for Neural Networks [#337]

Vipul Arora, Laxmidhar Behera, Tharun Reddy and Ajay Yadav

3:30PM Supervised Classification via Constrained Subspace and Tensor Sparse Representation [#380]

Liang Liao, Stephen Maybank, Yanning Zhang and Xin Liu

3:50PM Parallel Dynamic Search Fireworks Algorithm with Linearly Decreased Dimension Number Strategy for Solving Conditional Nonlinear Optimal Perturbation [#472]

Bin Mu, Junhui Zhao, Shijin Yuan and Jinghao Yan

4:10PM Parametric Identification of Stochastic Interaction Networks [#39]

Hana Baili

Session time: Temporal processing

Tuesday, May 16, 4:40PM-6:20PM, Room: Parallel 1 (Cook), Chair: Seif-Eddine Benkabou

4:40PM State Initialization for Recurrent Neural Network Modeling of Time-Series Data [#127]

Nima Mohajerin and Steven Waslander

5:00PM A Framework for Benchmarking Machine Learning Methods Using Linear Models for Univariate Time Series Prediction [#177]

Rebecca Salles, Laura Assis, Gustavo Guedes, Eduardo Bezerra, Fabio Porto and Eduardo Ogasawara

5:20PM Adaptive Learning Method of Recurrent Temporal Deep Belief Network to Analyze Time Series Data [#525]

Takumi Ichimura and Shin Kamada

5:40PM L2-Type Regularization-based Unsupervised Anomaly Detection from Temporal Data [#397]

Seif-Eddine Benkabou, Khalid Benabdeslem and Canitia Bruno

6:00PM Spatio-Temporal Cellular Automata-Based Filtering for Image Sequence Denoising [#398]

Blanca Priego, Abraham Prieto, Richard J. Duro and Jocelyn Chanusot

Session text: Text and document processing

Tuesday, May 16, 4:40PM-6:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Jonatas Wehrmann

4:40PM Tightly-coupled Convolutional Neural Network with Spatial-temporal Memory for Text Classification [#557]

Shiyao Wang and Zhidong Deng

5:00PM Ensemble Application of Convolutional and Recurrent Neural Networks for Multi-label Text Categorization [#160]

Guibin Chen, Deheng Ye, Zhenchang Xing, Jiешan Chen and Erik Cambria

5:20PM A Character-based Convolutional Neural Network for Language-Agnostic Twitter Sentiment Analysis [#793]

Jonatas Wehrmann, Willian Becker, Henry Cagnini and Rodrigo Barros

5:40PM Sentiment Classification with the Exploration of Overall Opinion Sentences [#902]

Xiaojia Pu, Gangshan Wu and Chunfeng Yuan

6:00PM A Model of Extended Paragraph Vector for Document Categorization and Trend Analysis [#482]

Pengfei Liu, King Keung Wu and Helen Meng

Special Session S32b: Reservoir computing in hardware 2

Tuesday, May 16, 4:40PM-6:20PM, Room: Parallel 3 (Room #2+11+12), Chair: Nathan McDonald

4:40PM Photonic Reservoir Computer With Output Feedback for Chaotic Time Series Prediction [#224]

Piotr Antonik, Michiel Hermans, Marc Haelterman and Serge Massar

5:00PM Robustness of a Memristor Based Liquid State Machine [#687]

Nicholas Soures, Lydia Hays and Dhireesha Kudithipudi

5:20PM A Digital Neuromorphic Architecture Efficiently Facilitating Complex Synaptic Response Functions Applied to Liquid State Machines [#818]

Michael Smith, Aaron Hill, Kristofor Carlson, Craig Vineyard, Jonathon Donaldson, David Follett, Pamela Follett, John Naegle, Conrad James and James Aimone

5:40PM Reservoir Computing and Extreme Learning Machines using Pairs of Cellular Automata Rules [#646]

Nathan McDonald

6:00PM Maximizing Memory Capacity of Echo State Networks with Orthogonalized Reservoirs [#561]

Igor Farkas and Peter Gergel

Session spike4: Spiking neurons

Tuesday, May 16, 4:40PM-6:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Arunava Banerjee

4:40PM Learning Deterministic Spiking Neuron Feedback Controllers [#636]

Tae Seung Kang and Arunava Banerjee

5:00PM INXS: Bridging the Throughput and Energy Gap for Spiking Neural Networks [#867]

Surya Narayanan, Ali Shafiee and Rajeev Balasubramonian

5:20PM Image Segmentation with Stochastic Magnetic Tunnel Junctions and Spiking Neurons [#532]

Chamika Liyanagedera, Parami Wijesinghe, Akhilesh Jaiswal and Kaushik Roy

5:40PM BrainGrid+Workbench: High-Performance/High-Quality Neural Simulation [#135]

Michael Stiber, Fumitaka Kawasaki, Delmar Davis, Hazeline Asuncion, Jewel Lee and Destiny Boyer

6:00PM Generalized Model of Biological Neural Networks: Progressive Operational Perceptrons [#37]

Kiranyaz Serkan, Ince Turker, Iosifidis Alexandros and Gabbouj Moncef

Session convnet1: Convolutional neural networks 1

Tuesday, May 16, 4:40PM-6:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Thomas Martinetz

4:40PM Recursive Autoconvolution for Unsupervised Learning of Convolutional Neural Networks [#170]

Boris Knyazev, Erhardt Barth and Thomas Martinetz

5:00PM FxpNet: Training a Deep Convolutional Neural Network in Fixed-Point Representation [#373]

Xi Chen, Xiaolin Hu, Hucheng Zhou and Ningyi Xu

5:20PM Accelerating Convolutional Neural Networks by Group-wise 2D-filter Pruning [#374]

Niange Yu, Shi Qiu, Xiaolin Hu and Jianmin Li

5:40PM Exploring Optimized Accelerator Design for Binarized Convolutional Neural Networks [#592]

Kodai Ueyoshi, Kota Ando, Kentaro Orimo, Masayuki Ikebe, Tetsuya Asai and Masato Motomura

6:00PM Transfer Learning for Automated Optical Inspection [#855]

Seunghyeon Kim, Wooyoung Kim, Yung-Kyun Noh and Frank Park

Session theory8: Theory 8

Tuesday, May 16, 4:40PM-6:20PM, Room: Parallel 6 (Room #5+6), Chair: Liang Zhao

4:40PM Low and High Level Classification using Stacking [#513]

Thiago Covoos and Liang Zhao

5:00PM Improving the Performance of Neural Networks in Regression Tasks Using Drawring [#520]

Konrad Zolna

5:20PM Top-down Strategies for Hierarchical Classification of Transposable Elements with Neural Networks [#527]

Felipe Kenji Nakano, Walter Jose Pinto, Gisele Lobo Pappa and Ricardo Cerri

5:40PM Ternary Neural Networks for Resource-Efficient AI Applications [#652]

Hande Alemdar, Vincent Leroy, Adrien Prost-Boucle and Frederic Petrot

6:00PM Manifold Learning with Iterative Dimensionality Photo-Projection [#611]

Daniel Lueckehe, Stefan Oehmcke and Oliver Kramer

Plenary Poster Session P2: Poster session #2

Tuesday, May 16, 7:30PM-9:00PM, Room: Arteaga, Chair: Richard Duro

- P301 Hexpo: A Vanishing-Proof Activation Function [#115]
Shumin Kong and Masahiro Takatsuka
- P302 Potential Layer-Wise Supervised Learning for Training Multi-Layered Neural Networks [#64]
Ryotaro Kamimura
- P303 A Quotient Gradient Method to Train Artificial Neural Networks [#47]
Hamid Khodabandehlou and Mohammad Sami Fadali
- P304 ABiRCNN with Neural Tensor Network for Answer Selection [#98]
Xingwei He and Hua Xu
- P305 Three-Step DTZNN Algorithm for Time-Varying Linear Matrix Inequality Solving [#540]
Dongsheng Guo, Aifen Li, Xinjie Lin, Feng Xu and Zhaozhu Su
- P306 On the Memory Properties of Recurrent Neural Models [#54]
Arthur Jack Russell, Emmanouil Benetos and Artur d'Avila Garcez
- P307 An Alternative Approach for Binary and Categorical Self-Organizing Maps [#781]
Alessandra Santana, Alessandra Morais and Marcos Quiles
- P308 On Self-Organizing Maps for Orienteering Problems [#209]
Jan Faigl
- P309 Are Recurrent Associative Memories Good Models of Decision Making? Modelling discrimination decisions from different perspectives [#211]
Bradley Harding, Marc-Andre Goulet, Denis Cousineau and Sylvain Chartier
- P310 EnsembleSNN: Distributed Assistive STDP Learning for Energy-Efficient Recognition in Spiking Neural Networks [#514]
Priyadarshini Panda, Gopalakrishnan Srinivasan and Kaushik Roy
- P311 The Effect of Biologically-Inspired Mechanisms in Spiking Neural Networks for Neuromorphic Implementation [#395]
Catherine Schuman
- P312 Comparison of Echo State Network Output Layer Classification Methods on Noisy Data [#490]
Ashley Prater
- P313 Impact of biased mislabeling on learning with deep networks. [#711]
Farzaneh S. Fard, Paul Hollensen, Stuart McIlory and Thomas Trappenberg
- P314 A Class-specific Copy Network for Handling the Rare Word Problem in Neural Machine Translation [#497]
Feng Wang, Wei Chen, Zhen Yang, Xiao Wei Zhang, Shuan Xu and Bo Xu
- P315 Transforming Sensor Data to the Image Domain for Deep Learning - an Application to Footstep Detection [#874]
Monit Shah Singh, Vinaychandran Pondenkandath, Bo Zhou, Paul Lukowicz and Marcus Liwicki
- P316 Convolutional Neural Networks with Multi-valued Neurons [#458]
Yuki Kominami, Hideki Ogawa and Kazuyuki Murase
- P317 Noisy Deep Dictionary Learning: Application to Alzheimer's Disease Classification [#440]

Vanika Singhal and Angshul Majumdar

P318 Improvement of Learning for CNN with ReLU Activation by Sparse Regularization [#289]

Hidenori Ide and Takio Kurita

P319 Optimization and evaluation of deep architectures for ambient awareness on a sidewalk [#794]

Faruk Ahmed and Mohammed Yeasin

P320 Deep Learning and Block Go [#369]

Shi-Jim Yen, Chingnung Lin, Guan-Lun Cheng and Jr-Chang Chen

P321 The RNN-ELM Classifier [#32]

Athanasios Vlontzos

P322 A Neuron-Output-Significant-Index-based Self-organization Pruning Algorithm for S-LINN [#789]

Lizhen Dai, Gang Yang and Hui Yang

P323 Adaptive Filtering Based on Extended Kernel Recursive Maximum Correntropy [#676]

Shengyang Luan, Tianshuang Qiu and Jose Principe

P324 ADL: Active Dictionary Learning for Sparse Representation [#263]

Bo Tang, Jin Xu, Haibo He and Hong Man

P325 A Web-based Tool for Segmentation and Automatic Transcription of Historical Documents [#612]

Fouad Slimane, Andrea Mazzei, Orlin Topalov, Greta Verzi and Frederic Kaplan

P326 Low n-Rank Tensor Log-Linear Models for Classification [#750]

Caleb Nelson, Yulo Leake and Brian Hutchinson

P327 Machine Learning Approaches for the Prediction of Obesity using Publicly Available Genetic Profiles [#312]

Casimiro Aday Curbelo, Paul Fergus, Abir Jaafar Hussain, Dhiya Al-Jumeily, Basma Abdulaimma, Hind Jade and Radi Naeem

P328 FEMaR: A Finite Element Machine for Regression Problems [#91]

Danillo Pereira, Joao Papa and Andre Souza

P329 Adversarial Learning Games with Deep Learning Models [#81]

Aneesh Sreevallabh Chivukula and Wei Liu

P330 Towards the Discrimination of Primary and Secondary Headache: An Intelligent Systems Approach [#226]

Robert Keight, Dhiya Al-Jumeily, Abir Hussain, Mohammed Al-Jumeily and Mallucci Conor

P331 HMM-based Gesture Recognition Sytem Using Kinect Sensor for Improvised Human-Computer Interaction [#550]

Sriparna Saha, Rimita Lahiri, Amit Konar, Bonny Banerjee and Atulya K. Nagar

P332 Projected Clustering via Robust Orthogonal Least Square Regression with Optimal Scaling [#101]

Rui Zhang, Feiping Nie and Xuelong Li

P333 Multi-View Hard C-Means with Automated Weighting of Views and Variables [#122]

Rodrigo de Araujo, Francisco de Carvalho and Yves Lechevallier

P334 Interpreting Multivariate Membership Degrees of Fuzzy Clustering Methods: a Strategy [#198]

Bruno Pimentel, Marcilio de Souto and Renata de Souza

P335 A Neuro-based Network for On-line Topological Map Building and Dynamic Path Planning [#834]

Wei Hong Chin, Azhar Aulia Saputra and Naoyuki Kubota

P336 The LICORS Cabinet: Nonparametric Light Cone Methods for Spatio-Temporal Modeling [#13]

George Montanez and Cosma Shalizi

P337 Mobile Robot Control Based on Hybrid Neuro-Fuzzy Value Gradient Reinforcement Learning [#771]

Seaar Al-Dabooni and Donald Wunsch

P338 Towards Enabling Deep Learning Techniques for Adaptive Dynamic Programming [#543]

Zhen Ni, Malla Naresh and Zhong Xiangnan

P339 Deep Convolutional and Recurrent Writer [#325]

Sadaf Gulshad and Jong-Hwan Kim

P340 An Efficient Semi-Supervised SVM for Anomaly Detection [#367]

Junae Kim and Paul Montague

P341 Two Improved Continuous Bag-of-Word Models [#168]

Qi Wang, Jungang Xu, Hong Chen and Ben He

P342 OMKT: Projection Based Bounded On-line Multiple Kernel Tracker [#823]

Prabhash Kumarasinghe and Suresh Sundaram

P343 Recent Advances in Video-Based Human Action Recognition using Deep Learning: A Review [#578]

Di Wu, Nabin Sharma and Michael Blumenstein

P344 Object Recognition using Cellular Simultaneous Recurrent Networks and Convolutional Neural Network [#933]

Md Zahangir Alom, M. Alam, Tarek M. Taha and K.M. Iftekharuddin

P345 Video-Based Face Recognition Using Ensemble of Haar-Like Deep Convolutional Neural Networks [#699]

Mostafa Parchami, Saman Bashbaghi and Eric Granger

P346 Random Fourier Feature Kernel Recursive Least Squares [#229]

Zhengda Qin, Badong Chen and Nanning Zheng

P347 Relevance Effect: Exploiting Bayesian Networks to Improve Supervised Learning [#247]

Ardavan S. Nobandegani, Jad Kabbara and Ioannis N. Psaromiligkos

P348 Kernel Group Sparse Representation based Classifier for Multimodal Biometrics [#843]

Gaurav Goswami, Mayank Vatsa, Richa Singh and Angshul Majumdar

P349 Pose Invariance Through Registration for Hierarchical Feature Based Pattern Recognition Systems [#883]

Noel Khan, David Elizondo, Benjamin Passow and Pamela Hardaker

P350 Joint Optimization of Feature Transform and Instance Weighting for Domain Adaptation [#238]

Masato Ishii and Atsushi Sato

P351 Feature Selection for Biometric Recognition Based on Electrocardiogram Signals [#749]

Felipe G. Silva Teodoro, Sarajane M. Peres and Clodoaldo Lima

P352 EMNIST: extending MNIST to handwritten letters [#706]

Gregory Cohen, Saeed Afshar, Jonathan Tapson and Andre van Schaik

P353 Improved maximum inner product search with better theoretical guarantees [#618]

Omid Keivani, Kaushik Sinha and Parikshit Ram

P354 SVRG with Adaptive Epoch Size [#801]

Erxue Min, Yawei Zhao, Jun Long, Chengkun Wu, Kuan Li and Jianping Yin

P355 Temporal Progression in Functional Connectivity Determines Individual Differences in Working memory Capacity [#455]

Pouya Bashivan, Gavin Bidelman and Yeasin Mohammed

P356 A Chaotic Ring Neural Oscillator of Three Nonmonotonic Neurons [#539]

Yo Horikawa

P357 The Use of One-Class Classifiers for Differentiating Healthy from Epileptic EEG Segments [#499]

Jefferson Oliva and Joao Luis Rosa

P358 Signal Coding and Reconstruction Using Deterministic Spiking Neurons [#747]

Gokhan Kaya and Arunava Banerjee

P359 Training a Two-choice Decision-making Model with Environment Feedback [#121]

Hui Wei and Yijie Bu

P360 Deteriorating neural connectivity of the hippocampal episodic memory network in mTBI patients: a cohort study [#88]

Hao Yan, Chuanzhu Sun, Xiaocui Wang and Lijun Bai

P361 Dynamic Control Using Feedforward Networks with Adaptive Delay and Facilitating Neural Dynamics [#461]

Khuong Nguyen and Yoonsuck Choe

P362 Ensemble of Classifiers Applied to Motor Imagery Task Classification for BCI Applications [#753]

Alimed Celecia, Rene Gonzalez, Marley Vellasco and Pedro Vellasco

P363 A Wireless Steady State Visually Evoked Potential-based BCI Eating Assistive System [#465]

Ching-Yu Chiu, Avinash Kumar Singh, Yu-Kai Wang, Jung-Tai King and Chin-Teng Lin

P364 Brewing the first ever automatic memory management utility for SpiNNaker: Real-Time Garbage Collection for STDP simulations [#62]

Mantas Mikaitis and David R. Lester

P365 Exploiting the Use of Recurrent Neural Networks for Driver Behavior Profiling [#210]

Eduardo Carvalho, Bruno Ferreira, Jair Ferreira Junior, Cleidson de Souza, Hanna Carvalho, Yoshihiko Suhara, Alex Pentland and Gustavo Pessin

P366 In vivo Classification of Inflammation in Blood Vessels with Convolutional Neural Networks [#805]

Stuart Mcilroy, Yoshimasa Kubo, James Toguri, Christian Lehmann and Thomas Trappenberg

P367 An Investigation of High-Resolution Modeling Units of Deep Neural Networks for Acoustic Scene Classification [#298]

Xiao Bao, Tian Gao, Jun Du and Li-Rong Dai

- P368 Detection of Motorcyclists without Helmet in Videos using Convolutional Neural Network [#394]
C. Vishnu, Dinesh Singh, C. Krishna Mohan and Ch. Sobhan Babu
- P369 Fast Diagnosis of Bowel Activities [#275]
Yi Huang, Song Insu, Priyanka Rana and Guan Koh
- P370 A comparative study of complexity of handwritten Bharati characters with that of major Indian scripts [#426]
Manali Naik and V. Srinivasa Chakravarthy
- P371 The Classification of Periodic Light Curves from non-survey optimized observational data through Automated Extraction of Phase-based Visual Features [#342]
Paul (Ross) McWhirter, Iain Steele, Dhiya Al-Jumeily, Abir Hussain and Marley Vellasco
- P372 Weighted Numerical and Categorical Attribute Clustering in Data Streams [#905]
Wen-Bin Liang, Chang-Dong Wang and Jian-Huang Lai
- P373 Phonetic State Relation Graph Regularized Deep Neural Network for Robust Acoustic Model [#147]
Hoon Chung, Yoo Rhee Oh, Sung Joo Lee and Jeon Gue Park
- P374 Small-footprint convolutional neural network for spoofing detection [#144]
Heinrich Dinkel, Yanmin Qian and Kai Yu
- P375 Biomorphic Modeling of Phoneme Identification and Classification Based on an Evolving Fuzzy-neural Network - From Hardcomputing to Softcomputing [#430]
Mario Malcangi, Hao Quan and Philip Grew
- P376 Biologically Inspired Reinforcement Learning for Mobile Robot Collision Avoidance [#662]
Myung Seok Shim and Peng Li
- P377 MLMVN as an Intelligent Image Filter [#551]
Igor Aizenberg, Alan Ordukhanov and Fionntan O'Boy
- P378 Comprehensive Study of Features for Subject-independent Emotion Recognition [#537]
Ashutosh Adhikari, Savitha Ramasamy and Suresh Sundaram
- P379 Helicopter Load Signal and Fatigue Life Estimation Using Low Dimensional Spaces [#506]
Catherine Cheung, Julio J. Valdes and Alejandro Lehman-Rubio
- P380 Semi-supervised Saliency Classifier Based on a Linear Feedback Control System Model [#760]
Shuwei Huo, Yuan Zhou and Sun-Yuan Kung
- P381 Adaptive Learning Based Driving Episode Description on Category Maps [#71]
Hirokazu Madokoro, Kazuhito Sato, Kazuhisa Nakasho and Nobuhiro Shimoi
- P382 Structural Superpixel Descriptor for Visual Tracking [#102]
Wenjun Huang, Ruimin Hu, Chao Liang, Weijian Ruan and Bo Luo
- P383 Wavelet transform and adaptive arithmetic coding techniques for EEG lossy compression [#798]
Binh Nguyen, Dang Nguyen, Wanli Ma and Dat Tran
- P384 Multi-Bernoulli Filter for Group Object Tracking and Its Gaussian-Wishart Implementation [#206]
Kangin Dmitry and Markarian Garik

- P385 Prediction of Natural Guidewire Rotation Using an sEMG-based NARX Neural Network [#31]
Xiao-Hu Zhou, Gui-Bin Bian, Xiao-Liang Xie, Zeng-Guang Hou and Jian-Long Hao
- P386 Predicting Evolving Chaotic Time Series with Fuzzy Neural Networks [#113]
Frank Z. Xing, Erik Cambria and Xiaomei Zou
- P387 Information and Knowing When to Forget It [#517]
Rohit Sharma and Ognjen Arandjelovic
- P388 State Space Reconstruction from Noisy Nonlinear Time Series: An Autoencoder-based Approach [#541]
He Jiang and Haibo He
- P389 Symbolic representations of time series applied to biometric recognition based on ECG signals [#242]
Henrique dos Santos Passos, Bruno Matarazzo Duru, Edenilton Lima de Oliveira, Felipe Gustavo Silva Teodoro, Sarajane M. Peres and Clodoaldo A. M. Lima
- P390 Aspect-Based Sentiment Analysis Using ABPCS Model and SVMperf in Chinese Reviews [#157]
Yuxiang Bao, Hua Xu and Fei Jia
- P391 Text Clustering using Enhanced PLSA with Word Correlation [#762]
Qian Zuo, Chang-Dong Wang and Jian-Huang Lai
- P392 Fuzzy controlled VSC of battery storage system for seamless transition of microgrid between grid-tied and islanded mode [#199]
Chinmay Shah, Heidar Malki and Mehdi Abolhassani
- P393 Prediction of Residual Power Peaks in Industrial Microgrids using Artificial Neural Networks [#881]
Thorsten Vogt, Daniel Weber, Oliver Wallscheid and Joachim Boecker
- P394 A First Approach using Neural Network to Estimating Soil Bulk Density of Urucu Basin in Central Amazon-Brazil [#712]
Tayana Moreira, D. Brandao, D. Haddad, M. Ceddia, R. Oliveira and E. Pinheiro
- P395 Mining Unstructured Processes: An Exploratory Study on a Distance Learning Domain [#133]
Ana R. C. Maita, Marcelo Fantinato, Sarajane M. Peres, Lucineia H. Thom and Patrick C. K. Hung
- P396 Regression-forests-based Estimation of Blood Pressure using the Pulse Transit Time Obtained by Facial Photo-plethysmogram [#414]
Mototaka Yoshioka and Souksakhone Bounyong
- P397 Constrained LMS for Dynamic Flow Networks [#422]
Konstantinos Eftaxias, Clive Cheong Took, Bruno Venturini and David Arscott
- P398 Integrative Computing Method for the Prediction of Zinc-binding Sites in Proteins [#183]
Hui Li, Dechang Pi, Yinghong Liang, Chuanming Chen and Yongzhi Liu
- P399 Investigating the Effects of Class Imbalance in Learning the Claim Authorization Process in the Brazilian Health Care Market [#614]
Jackson Cassimiro, Andre Santana, Pedro Santos Neto and Ricardo Rabelo
- P400 A Language-Independent Hybrid Approach for Multi-Word Expression Extraction [#272]
YingHong Liang, Hongye Tan, Hui Li, Zhigang Wang and Wenming Gui

- P401 Learning User Distance from Multiple Social Networks [#280]
Yufei Liu, Dechang Pi and Lin Cui
- P402 Clickthrough Refinement for Improved Graph Ranking [#654]
He Yu, Wu Jun and Wang Haishuai
- P403 Deep Learning Inspired Prognostics Scheme for Applications Generating Big Data [#729]
Krishnan Raghavan, Jagannathan Sarangapani and V. A. Samaranayake
- P404 Critical Clearing Time Prediction Using Recurrent Neural Networks [#358]
Komla Folly, Paul Olulope and Ganesh Venayagamoorthy
- P405 Constrained versus Unconstrained Learning in Generalized Recurrent Network for Image Processing [#434]
Lasitha Vidyaratne, Mahbubul Alam, Keith Anderson and Khan Iftekharuddin
- P406 A Continuous Hopfield Neural Network Algorithm based on Dynamic Step for the Traveling Salesman Problem [#318]
Chunni Zhong, Zhenzhong Chu, Chaomin Luo and Wenyang Gan
- P407 Acoustic Novelty Detection with Adversarial Autoencoders [#338]
Emanuele Principi, Fabio Vesperini, Stefano Squartini and Francesco Piazza
- P408 Domain Adaptation of POS Taggers without Handcrafted Features [#812]
Irving Rodrigues, Eraldo Fernandes and Cicero dos Santos
- P409 Scaling Up Deep Reinforcement Learning for Multi-Domain Dialogue Systems [#474]
Heriberto Cuayahuitl, Seunghak Yu, Ashley Williamson and Jacob Carse
- P410 Kernel and Random Extreme Learning Machine applied to Submersible Motor Pump Fault Diagnosis [#108]
Thomas W. Rauber, Thiago Oliveira-Santos, Francisco de Assis Boldt, Flavio M. Varejao, Alexandre Rodrigues and Marcos Pellegrini Ribeiro
- P411 A Multistage Collaborative Filtering Algorithm for Fall Detection [#184]
Tao Xie, Yiqiang Chen, Lisha Hu, Chenlong Gao, Chunyu Hu and Jianfei Shen
- P412 Piecewise Multi-linear Fuzzy Extreme Learning Machine for the Implementation of Intelligent Agents [#650]
Ines del Campo, Victoria Martinez, Flavia Orosa, Javier Echanobe, Estibalitz Asua and Koldo Basterretxea
- P413 Extreme Learning Machine as a Generalizable Classification Engine [#347]
Abdullah M. Zyarah and Dhireesha Kudithipudi
- P414 Cellular Computational Extreme Learning Machine Network Frequency Predictions in a Power System [#778]
Iroshani Jayawardene and Ganesh K. Venayagamoorthy
- P415 A Robust Method for the Interpretation of Genomic Data [#355]
Jade Hind, Paulo Lisboa, Abir Hussain, Dhiya Al-Jumeily, Casimiro Aday Curbelo Montanez and Basma Abdulaimma
- P416 A Support Vector Machine Approach to Identification of Proteins Relevant to Learning in a Mouse Model of Down Syndrome [#768]
Tara Eicher and Kaushik Sinha
- P417 Deep Graph Embeddings for the Analysis of Short Heartbeat Interval Time Series [#900]

Tamas Madl

P418 Short-Term Plasticity in a Liquid State Machine Biomimetic Robot Arm Controller [#75]

Ricardo de Azambuja, Frederico Klein, Samantha Adams, Martin Stoelen and Angelo Cangelosi

P419 STDP-based Unsupervised Learning of Memristive Spiking Neural Network by Morris-Lecar Model [#494]

Amirali Amirsoleimani, Majid Ahmadi and Arash Ahmadi

P420 Computational Paradigms using Oscillatory Networks based on State-Transition Devices [#803]

Abhinav Parihar, Nikhil Shukla, Matthew Jerry, Suman Datta and Arijit Raychowdhury

P421 A Randomized Neural Network for Data Streams [#310]

Mahardhika Pratama, Plamen P. Angelov, Jie Lu, Edwin Lughofer, Mukesh Prasad, Manjeevan Seera and Chee Peng Lim

P422 Structure-based Fitness Prediction for the Variable-structure DANNA Neuromorphic Architecture [#896]

Aleksander Klibisz, Grant Bruer, Catherine Schuman and James Plank

P423 Analog Hardware Implementation of Spike-Based Delayed Feedback Reservoir Computing System [#765]

Jialing Li, Chenyuan Zhao, Kian Hamedani and Yang Yi

P424 Paving the way for providing teaching feedback in automatic evaluation of open response assignments [#85]

Veronica Bolon-Canedo, Jorge Diez, Oscar Luaces, Antonio Bahamonde and Amparo Alonso-Betanzos

P425 Prediction of Graduation Delay Based on Student Performance [#886]

Tushar Ojha, Gregory Heileman, Manel Martinez-Ramon and Ahmad Slim

Session Plen5: Plenary session 5: Stephen Grossberg

Wednesday, May 17, 8:00AM-9:00AM, Room: La Perouse, Chair: Daniel Levine

8:00AM Towards Solving the Hard Problem of Consciousness: The Varieties of Brain Resonances and the Conscious Experiences that they Support

Stephen Grossberg

Special Session S08: Computational intelligence algorithms for digital audio applications

Wednesday, May 17, 9:20AM-10:40AM, Room: Parallel 1 (Cook), Chair: Emanuele Principi

9:20AM Convolutional Gated Recurrent Neural Network Incorporating Spatial Features for Audio Tagging [#633]

Yong Xu, Qiuqiang Kong, Qiang Huang, Wenwu Wang and Mark D. Plumbley

9:40AM Deep Recurrent Music Writer: Memory-enhanced Variational Autoencoder-based Musical Score Composition and an Objective Measure [#602]

Romain Sabathe, Eduardo Coutinho and Bjoern Schuller

10:00AM Audio Event and Scene Recognition: A Unified Approach using Strongly and Weakly Labeled Data [#95]

Anurag Kumar and Bhiksha Raj

10:20AM On the Use of Deep Recurrent Neural Networks for Detecting Audio Spoofing Attacks [#410]

Simone Scardapane, Lucas Stoffl, Florian Rohrbein and Aurelio Uncini

Session text2: Text and document processing 2

Wednesday, May 17, 9:20AM-10:40AM, Room: Parallel 2 (Room #1+13+14), Chair: Frank Wood

9:20AM Multi-Sense Based Neural Machine Translation [#111]

Zhen Yang, Wei Chen, Feng Wang and Bo Xu

9:40AM Learning from Semantically Dependent Multi-Tasks [#256]

Bin Liu, Zenglin Xu, Bo Dai, Haoli Bai, Xianghong Fang, Yazhou Ren and Shandian Zhe

10:00AM Incorporating Loose-Structured Knowledge into Conversation Modeling via Recall-Gate LSTM [#314]

Zhen Xu, Bingquan Liu, Baoxun Wang, Chengjie Sun and Xiaolong Wang

10:20AM Using Synthetic Data to Train Neural Networks is Model-Based Reasoning [#751]

Tuan Anh Le, Atilim Gunes Baydin, Robert Zinkov and Frank Wood

Special Session S27a: Neuro-inspired computing with nanoelectronic devices 1

Wednesday, May 17, 9:20AM-10:40AM, Room: Parallel 3 (Room #2+11+12), Chair: Saibal Mukhopadhyay

9:20AM Enabling Bio-Plausible Multi-level STDP using CMOS Neurons with Dendrites and Bistable RRAMs [#215]

Xinyu Wu and Vishal Saxena

9:40AM On-chip Training of Memristor Based Deep Neural Networks [#727]

Raqibul Hasan, Tarek Taha and Chris Yakopcic

10:00AM Interpretability of Artificial Hydrocarbon Networks for Breast Cancer Classification [#523]

Hiram Ponce and Ma de Lourdes Martinez-Villasenor

10:20AM Cognitive Domain Ontologies on the TrueNorth Neurosynaptic System [#824]

Nayim Rahman, Tanvir Atahary, Tarek Taha and Scott Douglass

Session cortex: Cortical modeling and simulation

Wednesday, May 17, 9:20AM-10:40AM, Room: Parallel 4 (Room #3+10+9), Chair: Bryan Tripp

9:20AM Similarities and Differences Between Stimulus Tuning in the Inferotemporal Visual Cortex and Convolutional Networks [#872]

Bryan Tripp

9:40AM Odor Recognition in an Attractor Network Model of the Mammalian Olfactory Cortex [#645]

Pawel Herman, Simon Benjaminsson and Anders Lansner

10:00AM Collective Discovery of Brain Networks with Unknown Groups [#244]

Xinyue Liu, Xiangnan Kong and Philip Yu

10:20AM A biologically inspired neuronal model of reward prediction error computation [#478]

Pramod Kaushik, Maxime Carrere, Frederic Alexandre and Bapi Raju Surampudi

Session convnet2: Convolutional neural networks 2

Wednesday, May 17, 9:20AM-10:40AM, Room: Parallel 5 (Room #4+7+8), Chair: Hui Jiang

9:20AM A Fast Method for Saliency Detection by Back-Propagating A Convolutional Neural Network and Clamping Its Partial Outputs [#143]

Hengyue Pan and Hui Jiang

9:40AM Identifying Spatial Relations in Images using Convolutional Neural Networks [#839]

Mandar Haldekar, Ashwinkumar Ganesan and Tim Oates

10:00AM Connecting Deep Neural Networks with Symbolic Knowledge [#370]

Arjun Kumar and Tim Oates

10:20AM Convolutional Sparse Coding on Neurosynaptic Cognitive System [#785]

Md Zahangir Alom, Brian Van Essen, Adam T. Moody, David Peter Widemann and Tarek M. Taha

Session theory9: Theory 9

Wednesday, May 17, 9:20AM-10:40AM, Room: Parallel 6 (Room #5+6), Chair: Junpei Zhong

9:20AM Label Confidence based AdaBoost Algorithm [#51]

Zhe Luo, Xin Dang and Yixin Chen

9:40AM Toward Abstraction from Multi-modal Data: Empirical Studies on Multiple Time-scale Recurrent Models [#156]

Junpei Zhong, Angelo Cangelosi and Tetsuya Ogata

10:00AM Self-Training with Adaptive Regularization for S3VM [#191]

Edward Cheung and Yuying Li

10:20AM Universum Learning for SVM Regression [#366]

Sauptik Dhar and Vladimir Cherkassky

Special Session S20: Machine learning for business analytics

Wednesday, May 17, 11:00AM-12:20PM, Room: Parallel 1 (Cook), Chair: Chul Sung

11:00AM Improving Recommendation Accuracy using Networks of Substitutable and Complementary Products [#274]

Tong Zhao, Julian McAuley, Mengya Li and Irwin King

11:20AM Cold-start, Warm-start and Everything in Between: An Autoencoder based Approach to Recommendation [#563]

Anant Jain and Angshul Majumdar

11:40AM Evaluating Deep Learning in Churn Prediction for Everything-as-a-Service in the Cloud [#848]

Chul Sung, Chunhui Higgins, Bo Zhang and Yoonsuck Choe

12:00PM It's About Time! Modeling Customer Behaviors as the Secretary Problem in Daily Deal Websites [#284]

Tong Zhao, Mantian Hu, Razieh Rahimi and Irwin King

Special Session S14+18: Explainability and Interpretability in Machine Learning

Wednesday, May 17, 11:00AM-12:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Isabelle Guyon; Michael Biehl

11:00AM Can we Explain Natural Language Inference Decisions taken with Neural Networks? Inference Rules in Distributed Representations [#90]

Fabio Massimo Zanzotto and Lorenzo Ferrone

11:20AM Design of an Explainable Machine Learning Challenge for Video Interviews [#331]

Hugo Jair Escalante, Isabelle Guyon, Sergio Escalera, Julio Jaques Jr., Xavier Baro, Evelyne Viegas, Yagmur Gucluturk, Umut Guclu, Marcel A. J. van Gerven, Rob van Lier, Meysam Madadi and Stephane Ayache

11:40AM Classification of sparsely and irregularly sampled time series: a learning in model space approach [#845]

Yuan Shen, Peter Tino and Krasimira Tsaneva-Atanasova

12:00PM Marker Selection for the Detection of Trisomy 21 Using Generalized Matrix Learning Vector Quantization [#605]

Andreas Neocleous, Costas Neocleous, Christos N. Schizas, Michael Biehl and Nicolai Petkov

Special Session S27b: Neuro-inspired computing with nanoelectronic devices 2

Wednesday, May 17, 11:00AM-12:20PM, Room: Parallel 3 (Room #2+11+12), Chair: Kaushik Roy

11:00AM Exponential-Weight Multilayer Perceptron [#388]

Farnood Merrih Bayat, Xinjie Guo and Dmitri Strukov

11:20AM On-Chip Training of Recurrent Neural Networks with Limited Numerical Precision [#829]

Taesik Na, Jong Hwan Ko, Jaeha Kung and Saibal Mukhopadhyay

11:40AM Neuromorphic System with Phase-Change Synapses for Pattern Learning and Feature Extraction [#231]

Stanislaw Wozniak, Angeliki Pantazi, Yusuf Leblebici and Evangelos Eleftheriou

12:00PM Flight Dynamics Modeling and Recognition using Finite State Machine for Automatic Insect Recognition [#816]

Kan Li and Jose Principe

Session mixture: Mixture models

Wednesday, May 17, 11:00AM-12:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Weite Li

11:00AM Non-Local Information for a Mixture of Multiple Linear Classifiers [#149]

Weite Li, Peifeng Liang, Xin Yuan and Jinglu Hu

11:20AM A Mixture of Multiple Linear Classifiers with Sample Weight and Manifold Regularization [#552]

Weite Li, Benhui Chen, Bo Zhou and Jinglu Hu

11:40AM Generative Mixture of Networks [#704]

Ershad Banijamali, Ali Ghodsi and Pascal Poupart

12:00PM Generalized Mixture Representations and Combinations for Additive Fuzzy Systems [#935]

Bart Kosko

Session semisup: Semisupervised learning

Wednesday, May 17, 11:00AM-12:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Alex Fedorov

11:00AM Truncated Variational EM for Semi-Supervised Neural Simpletrons [#682]

Dennis Forster and Jorg Lucke

11:20AM A Partial Labeling Framework for Multi-Class Imbalanced Streaming Data [#109]

Elaheh Arabmakki, Mehmed Kantardzic and Tegjyot Singh Sethi

11:40AM Zero-Shot Learning with a Partial Set of Observed Attributes [#377]

Yaqing Wang, James T. Kwok, Quanming Yao and Lionel M. Ni

12:00PM End-to-end learning of brain tissue segmentation from imperfect labeling [#877]

Alex Fedorov, Jeremy Johnson, Eswar Damaraju, Alexei Ozerin, Vince Calhoun and Sergey Plis

Session neuro: Computational neuroscience

Wednesday, May 17, 11:00AM-12:20PM, Room: Parallel 6 (Room #5+6), Chair: Mayank Vatsa

11:00AM Synaptic Efficacy Mosaics and the Impact of Morphology [#937]

Nicolangelo Iannella and Thomas Launey

11:20AM A Synaptic Plasticity Rule Providing a Unified Approach to Supervised and Unsupervised Learning. [#362]

Mikhail Kiselev

11:40AM Region-specific fMRI Dictionary for Decoding Face Verification in Humans [#840]

Daksha Yadav, Naman Kohli, Shruti Nagpal, Maneet Singh, Prateekshit Pandey, Mayank Vatsa, Richa Singh, Afzel Noore, Gokulraj Prabhakaran and Harsh Mahajan

12:00PM Neural Computation with Non-uniform Population Codes [#9]

Brian Fischer

Session Plen6: Plenary session 6: Christof Koch

Wednesday, May 17, 1:30PM-2:30PM, Room: La Perouse, Chair: Irwin King

1:30PM Big Science, Team Science, Open Science for Neuroscience

Christof Koch

Panel Session Panel3: INNS 30th anniversary

Wednesday, May 17, 2:50PM-4:30PM, Room: La Perouse, Chair: David Brown

Special Session S10+24: Cybersecurity Analytics

Wednesday, May 17, 2:50PM-4:30PM, Room: Parallel 1 (Cook), Chair: Catherine Huang; Hongmei He

2:50PM Network Intrusion Detection for Cyber Security on Neuromorphic Computing System [#791]

Md Zahangir Alom and Tarek M. Taha

3:10PM Empowering Convolutional Networks for Malware Classification and Analysis [#381]

Bojan Kolosnjaji, Ghadir Eraisha, George Webster, Apostolis Zarras and Claudia Eckert

3:30PM The Object Class Intrinsic Filter Conjecture [#258]

Michael Kounavis

3:50PM Autoencoder-based Feature Learning for Cyber Security Applications [#576]

Mahmood Yousefi-Azar, Vijay Varadharajan, Len Hamey and Uday Tupakula

4:10PM A New Semantic Attribute Deep Learning with a Linguistic Attribute Hierarchy for Spam Detection [#409]

Hongmei He, Tim Watson, Carsten Maple, Jorn Mehnert and Ashutosh Tiwari

Session clst1: Clustering 1

Wednesday, May 17, 2:50PM-4:30PM, Room: Parallel 2 (Room #1+13+14), Chair: Max Vladymyrov

2:50PM Fast, Accurate Spectral Clustering Using Locally Linear Landmarks [#148]

Max Vladymyrov and Miguel Carreira-Perpinan

3:10PM Trajectory Clustering via Deep Representation Learning [#181]

Yao Di, Zhang Chao, Zhu Zhihua, Huang Jianhui and Bi Jingping

3:30PM Mini-Batch Spectral Clustering [#190]

Han Yufei and Filippone Maurizio

3:50PM A Deep Learning Enabled Subspace Spectral Ensemble Clustering Approach for Web Anomaly Detection [#566]

Yuan Guiqin, Li Bo, Yao Yiyang and Zhang Simin

4:10PM A Spectral Clustering Approach for Online and Streaming Applications [#684]

Antonio Robles-Kelly and Ran Wei

Session hw: Neuromorphic engineering

Wednesday, May 17, 2:50PM-4:30PM, Room: Parallel 3 (Room #2+11+12), Chair: Rohit Shukla

2:50PM C. elegans Neuromorphic Neural Network Exhibiting Undulating Locomotion [#553]

Nikita Agarwal, Neil Mehta, Alice Parker and Karam Ashouri

3:10PM Quadratic Unconstrained Binary Optimization (QUBO) on Neuromorphic Computing System [#831]

Md Zahangir Alom, Brian Van Essen, Adam T. Moody, David Peter Widemann and Tarek M. Taha

3:30PM An FPGA Distributed Implementation Model for Embedded SOM with On-Line Learning [#444]

Miguel Angelo de Abreu Sousa and Emilio Del-Moral-Hernandez

3:50PM Evaluating Hopfield-network-based linear solvers for hardware constrained neural substrates [#852]

Rohit Shukla, Erik Jorgensen and Mikko Lipasti

4:10PM A Power-Efficient Biomimetic Intra-Branch Dendritic Adder [#249]

Pezhman Mamdouh and Alice Parker

Session ensemble: Ensemble learning

Wednesday, May 17, 2:50PM-4:30PM, Room: Parallel 4 (Room #3+10+9), Chair: Jeremiah Deng

2:50PM Sensitivity and Similarity Regularization in Dynamic Selection of Ensembles of Neural Networks [#57]

Babak Keshavarz-Hedayati and Nikitas Dimopoulos

3:10PM Analyzing different prototype selection techniques for dynamic classifier and ensemble selection [#138]

Rafael Menelau Oliveira e Cruz, Robert Sabourin and George Darmiton da Cunha Cavalcanti

3:30PM A Multi-agent Metaheuristic Hybridization to the Automatic Design of Ensemble Systems [#786]

Antonino Feitosa Neto, Anne Canuto, Joao Carlos Xavier-Junior and Cephas Barreto

3:50PM A kernel-based ensemble classifier for evolving stream of trees with double concept drifting reaction [#873]

Valerio Grossi and Alessandro Sperduti

4:10PM A Streaming Ensemble Classifier with Multi-Class Imbalance Learning for Activity Recognition [#875]

Ahmad Shahi, Jeremiah Deng and Brendon Woodford

Session rl: Reinforcement learning

Wednesday, May 17, 2:50PM-4:30PM, Room: Parallel 5 (Room #4+7+8), Chair: Shalabh Bhatnagar

2:50PM Bounds for Off-policy Prediction in Reinforcement Learning [#365]

Ajin George Joseph and Shalabh Bhatnagar

3:10PM Training Neural Networks with Policy Gradient [#870]

Sourabh Bose and Manfred Huber

3:30PM Can A Reinforcement Learning Agent Practice Before It Starts Learning? [#457]

Minwoo Lee and Charles Anderson

3:50PM A Sandpile Model for Reliable Actor-Critic Reinforcement Learning [#518]

Yiming Peng, Gang Chen, Mengjie Zhang and Shaoning Pang

4:10PM Online Reinforcement with Exploration for Distributed Control [#637]

Vignesh Narayanan and Jagannathan Sarangapani

Session behav: Behavior analysis

Wednesday, May 17, 2:50PM-4:30PM, Room: Parallel 6 (Room #5+6), Chair: Haibo He

2:50PM Dynamic Adaptation of User Migration Policies in Distributed Virtual Environments [#16]

David Vengerov

3:10PM Semi-wildlife gait patterns classification using Statistical Methods and Artificial Neural Networks [#669]

Daniel Gutierrez-Galan, Juan Pedro Dominguez-Morales, Lourdes Miro-Amarante, Francisco Gomez-Rodriguez, Manuel Jesus Dominguez-Morales, Manuel Rivas-Perez, Angel Jimenez-Fernandez and Alejandro Linares-Barranco

3:30PM Improving Point-based AIS Trajectory Classification with Partition-wise Gated Recurrent Units [#697]

Xiang Jiang, Xuan Liu, Erico N de Souza, Baifan Hu, Daniel L. Silver and Stan Matwin

3:50PM Pedestrian Detection with Dilated Convolution, Region Proposal Network and Boosted Decision Trees [#483]

Jiqian Li, Yan Wu, Junqiao Zhao, Linting Guan, Chen Ye and Tao Yang

4:10PM A Learning based Approach for Social Force Model Parameter Estimation [#533]

Zhiqiang Wan, Xuemin Hu, Haibo He and Yi Guo

Panel Session Panel4: New opportunities in neural network funding

Wednesday, May 17, 4:40PM-6:20PM, Room: La Perouse, Chair: Hava Siegelmann

Session security: Security and risk assessment

Wednesday, May 17, 4:40PM-6:20PM, Room: Parallel 1 (Cook), Chair: Tatiana Tambouratzis

4:40PM An Investigation of the Hoeffding Adaptive Tree for the Problem of Network Intrusion Detection [#587]

Diego Guarnieri Correa, Fabricio Enembreck and Carlos N. Silla Jr.

5:00PM Computational Intelligence Approach for Estimation of Vehicle Insurance Risk Level [#638]

Kristina Vassiljeva, Tepljakov Aleksei, Petlenkov Eduard and Netsajev Eduard

5:20PM A Compressive Multi-Kernel Method for Privacy-Preserving Machine Learning [#746]

Thee Chanyaswad, J. Morris Chang and S. Y. Kung

5:40PM How Systematic is the Environmental Sustainability Index 2002 as a Tool for Grouping Countries in Terms of Their Environmental Sustainability? [#658]

Tatiana Tambouratzis and Nikos Hatzithimiou

6:00PM Side-Channel Analysis and Machine Learning: A Practical Perspective [#702]

Stjepan Picek, Annelie Heuser, Alan Jovic, Simone Ludwing, Sylvain Guilley, Domagoj Jakobovic and Nele Mentens

Session clst2: Clustering 2

Wednesday, May 17, 4:40PM-6:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Jeremie Sublime

4:40PM Signal-Based Autonomous Clustering for Relational Data [#664]

Parisa Rastin, Basarab Matei, Guenael Cabanes and Ibtissame El baghdadi

5:00PM Collaborative Clustering between Different Topological Partitions [#674]

Antoine Lachaud, Nistor Grozavu, Matei Basarab and Younes Bennani

5:20PM Integrating distance metric learning and cluster-level constraints in semi-supervised clustering [#718]

Bruno Nogueira, Yuri Tomas and Ricardo Marcacini

5:40PM Analysis of the influence of diversity in collaborative and multi-view clustering [#8]

Jeremie Sublime, Basarab Matei and Pierre-Alexandre Murena

6:00PM Improving Load Forecasting Based on Deep Learning and K-shape Clustering [#52]

Fateme Fahiman, Sarah M.Erfani, Sutharshan Rajasegarar, Marimuthu Palaniswami and Christopher Leckie

Session robot: Robotics

Wednesday, May 17, 4:40PM-6:20PM, Room: Parallel 3 (Room #2+11+12), Chair: Chelsea Sabo

4:40PM Transfer Learning of Shared Latent Spaces between Robots with Similar Kinematic Structure [#853]

Brian Delhaisse, Domingo Esteban, Leonel Rozo and Darwin Caldwell

5:00PM Learning Multisensory Neural Controllers for Robot Arm Tracking [#890]

Lakshitha Wijesinghe, Marco Antonelli, Jochen Triesch and Bertram Shi

5:20PM Multi-robot Cooperative Planning by Consensus Q-learning [#910]

Arup Kumar Sadhu, Amit Konar, Bonny Banerjee and Atulya K. Nagar

5:40PM Nonlinearly-Activated Noise-Tolerant Zeroing Neural Network for Distributed Motion Planning of Multiple Robot Arms [#436]

Long Jin, Shuai Li, Xin Luo and Ming-sheng Shang

6:00PM An Inexpensive Flying Robot Design for Embodied Robotics Research [#683]

Chelsea Sabo, Esin Yavuz, Alex Cope, Kevin Gurney, Eleni Vasilaki, Thomas Nowotny and James Marshall

Session img: Image analysis

Wednesday, May 17, 4:40PM-6:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Alex Hocking

4:40PM Mining Hubble Space Telescope Images [#130]

Alex Hocking, Yi Sun, James Geach and Neil Davey

5:00PM Image Completion with Global Structure and Weighted Nuclear Norm Regularization [#200]

Mingli Zhang and Christian Desrosiers

5:20PM Two-dimensional Spectral Image Calibration Based on Feed-forward Neural Network [#333]

Mingze Li, Hasitieer Haerken, Fuqing Duan, Qian Yin, Xin Zheng and Ping Guo

5:40PM Genetic Algorithm-based Optimization of ELM for On-line Hyperspectral Image Classification [#595]

Javier Echanobe, Ines Del Campo, Koldo Basterretxea and Victoria Martinez

6:00PM Restricted Exhaustive Search for Frequency Band Selection in Motor Imagery Classification [#756]

Paul Bustios and Joao Rosa

Session rl-ctrl: Reinforcement learning and control

Wednesday, May 17, 4:40PM-6:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Stephen Piche

4:40PM Batch Reinforcement Learning on the Industrial Benchmark: First Experiences [#608]

Daniel Hein, Steffen Udluft, Michel Tokic, Alexander Hentschel, Thomas Runkler and Volkmar Sterzing

5:00PM Time Delays in a HyperNEAT Network to Improve Gait Learning for Legged Robots [#507]

Oscar Silva, Pascal Sigel and Maria-Jose Escobar

5:20PM Robust Optimal Control for Time-Delay Systems with Dynamic Uncertainties via ADP [#554]

Lu Dong, Jun Li, Wankou Yang and Changyin Sun

5:40PM Active disturbance rejection control based on differential neural networks [#19]

Ivan Salgado, Manuel Mera and Isaac Chairez

6:00PM Gain Confidence of a Neural Network used for Model Based Control [#232]

Steve Piche and Jason Grimm

Session pred: Prediction and forecasting

Wednesday, May 17, 4:40PM-6:20PM, Room: Parallel 6 (Room #5+6), Chair: Filippo Maria Bianchi

4:40PM Cellular Computational Generalized Neuron Network with Cooperative PSO for Power Systems [#721]

Md Rahman, Yawei Wei and Ganesh Venayagamoorthy

5:00PM Solar Power Prediction Using Weather Type Pair Patterns [#748]

Zheng Wang, Irena Koprinska and Mashud Rana

5:20PM Local Short Term Electricity Load Forecasting: Automatic Approaches [#758]

The-Hien Dang-Ha, Filippo Bianchi and Roland Olsson

5:40PM Temporal Overdrive Recurrent Neural Network [#386]

Filippo Maria Bianchi, Michael Kampffmeyer, Enrico Maiorino and Robert Jenssen

6:00PM Monthly Energy Consumption Forecast: A Deep Learning Approach [#207]

Rodrigo Berriel, Andre Teixeira Lopes, Alexandre Rodrigues, Flavio Miguel Varejao and Thiago Oliveira-Santos

Special Track Banquet: Banquet and Award Ceremony

Wednesday, May 17, 7:00PM-9:00PM, Room: Arteaga, Chair: Chrisina Jayne

Session Plen7: Plenary session 7: Odest Chadwicke Jenkins

Thursday, May 18, 8:00AM-9:00AM, Room: La Perouse, Chair: Yoonsuck Choe

8:00AM Perception of People and Scenes for Robot Learning from Demonstration

Odest Chadwicke Jenkins

Session self-org: Self-organization

Thursday, May 18, 9:20AM-10:40AM, Room: Parallel 1 (Cook), Chair: Ricardo Cerri

9:20AM A Self-Organizing Map-based Method for Multi-Label Classification [#427]

Gustavo Giordano Colombini, Iuri Bonna Mauricio Abreu and Ricardo Cerri

9:40AM From CPU to FPGA - Acceleration of Self-Organizing Maps for Data Mining [#475]

Jan Lachmair, Thomas Mieth, Rene Griessl, Jens Hagemeyer and Mario Porrmann

10:00AM Adaptive Density Estimation Based on Self-Organizing Incremental Neural Network using Gaussian Process [#772]

Xiaoyu Wang and Osamu Hasegawa

10:20AM Self-Organising Temporal Pooling [#888]

Daniel Slack, Brendan McCane and Alistair Knott

Special Session S17: Intelligent vehicle and transport systems

Thursday, May 18, 9:20AM-10:40AM, Room: Parallel 2 (Room #1+13+14), Chair: Yi Murphy

9:20AM Neural-Based Model Predictive Control for Tackling Steering Delays of Autonomous Cars [#227]

Ranik Guidolini, Alberto F. De Souza, Filipe Mutz and Claudine Badue

9:40AM Following the Leader using a Tracking System based on Pre-trained Deep Neural Networks [#825]

Filipe Mutz, Vinicius Cardoso, Thomas Teixeira, Luan F. R. Jesus, Michael A. Golcalves, Ranik Guidolini, Josias Oliveira, Claudine Badue and Alberto F. De Souza

10:00AM Unsupervised Learning for Surveillance Planning with Team of Aerial Vehicles [#732]

Jan Faigl and Petr Vana

10:20AM Long-Range Navigation by Path Integration and Decoding of Grid Cells in a Neural Network [#710]

Vegard Edvardsen

Session att: Attention and emotion

Thursday, May 18, 9:20AM-10:40AM, Room: Parallel 3 (Room #2+11+12), Chair: Soheil Keshmiri

9:20AM Designing an Adaptive Attention Mechanism for Relation Classification [#45]

Pengda Qin, Weiran Xu and Jun Guo

9:40AM Classification of Radiology Reports Using Neural Attention Models [#700]

Bonggun Shin, Falgun H. Chokshi, Timothy Lee and Jinho D. Choi

10:00AM Emotional State Estimation Using a Modified Gradient-Based Neural Architecture with Weighted Estimates [#112]

Soheil Keshmiri, Hidenobu Sumioka, Junya Nakanishi and Hiroshi Ishiguro

10:20AM Typicality effect on N400 ERP in categories despite differences in semantic processing [#300]

Mansoureh Fahimi Hnazaee and Marc Van Hulle

Session med: Medical and health applications

Thursday, May 18, 9:20AM-10:40AM, Room: Parallel 4 (Room #3+10+9), Chair: Danilo Mandic

9:20AM Complexity science for sleep stage classification from EEG [#487]

Takashi Nakamura, Tricia Adjei, Yousef Alqurashi, David Looney, Mary Morrell and Danilo Mandic

9:40AM Temporal-Specific Roles of Fractality in EEG Signal of Alzheimer's Disease [#544]

Sou Nobukawa, Teruya Yamanishi, Haruhiko Nishimura, Yuji Wada, Mitsuru Kikuchi and Tetsuya Takahashi

10:00AM Robust Greedy Deep Dictionary Learning for ECG Arrhythmia Classification [#18]

Majumdar Angshul and Ward Rabab

10:20AM An intelligent learning-based watermarking scheme for outsourced biomedical time series data [#690]

Trung Duy Pham, Dat Tran and Wanli Ma

Session scene: Scene analysis

Thursday, May 18, 9:20AM-10:40AM, Room: Parallel 5 (Room #4+7+8), Chair: Clive Cheong Took

9:20AM On Making Sense of Neural Networks in Road Analysis [#175]

Daniel Morris, Andreas Antoniadis and Clive Cheong Took

9:40AM Grassmann Matching Kernels for Scene Representation and Recognition [#477]

Bisser Raytchev, Miku Koujiba, Toru Tamaki and Kazufumi Kaneda

10:00AM 3D CNN Based Phantom Object Removing from Mobile Laser Scanning Data [#653]

Balazs Nagy and Csaba Benedek

10:20AM Comparison of Semantic Segmentation Approaches for Horizon/Sky Line Detection [#741]

Touqeer Ahmad, Pavel Campr, Martin Cadik and George Bebis

Session rnn: Recurrent neural networks

Thursday, May 18, 9:20AM-10:40AM, Room: Parallel 6 (Room #5+6), Chair: Stefan Oehmcke

9:20AM Convolving over Time via Recurrent Connections for Sequential Weight Sharing in Neural Networks [#691]

Jason Allred and Kaushik Roy

9:40AM Compressing Recurrent Neural Network with Tensor Train [#579]

Andros Tjandra, Sakriani Sakti and Satoshi Nakamura

10:00AM Recurrent Neural Networks and Exponential PAA for Virtual Marine Sensors [#656]

Stefan Oehmcke, Oliver Zielinski and Oliver Kramer

10:20AM On improving Recurrent Neural Network for Image Classification [#27]

Chandra B. and Rajeshkumar Sharma

Session dyn: Neurodynamics

Thursday, May 18, 11:00AM-12:20PM, Room: Parallel 1 (Cook), Chair: Isaac Chairez

11:00AM Global Asymptotic Stability for Matrix-Valued Recurrent Neural Networks with Time Delays [#79]

Calin-Adrian Popa

11:20AM Connection Sparsity versus Orbit Stability in Dynamic Binary Neural Networks [#445]

Ryuji Sato, Shunsuke Aoki and Toshimichi Saito

11:40AM A novel gene network model based on nonlinear dynamics of asynchronous cellular automaton [#924]

Ryota Araki, Hiroyuki Torikai and Takuya Yoshimoto

12:00PM Two-layer dynamic neural field learning law based on controlled Lyapunov functions [#500]

Jorge-Luis Garcia, Ivan Salgado and Isaac Chairez

Special Session S22: Machine learning methods applied to medicine

Thursday, May 18, 11:00AM-12:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Veronica Bolon-Canedo

11:00AM Supervised Context-Aware Non-Negative Matrix Factorization to Handle High-Dimensional High-Correlated Imbalanced Biomedical Data [#273]

Ali Braytee, Wei Liu and Paul Kennedy

11:20AM Objective Quality Assessment of Retinal Images Based on Texture Features [#221]

Beatriz Remeseiro, Ana Maria Mendonca and Aurelio Campilho

11:40AM Analysis and Optimization of the ¹³C Octanoic Acid Breath Test [#707]

Vitoantonio Bevilacqua, Marco Riezzo, Antonio Brunetti, Francesco Russo, Benedetta D'Attoma and Giuseppe Riezzo

12:00PM The Fused Lasso Penalty for Learning Interpretable Medical Scoring Systems [#213]

Nataliya Sokolovska, Yann Chevaleyre, Karine Clement and Jean-Daniel Zucker

Session brain: Brain imaging and analysis

Thursday, May 18, 11:00AM-12:20PM, Room: Parallel 3 (Room #2+11+12), Chair: Vasiliki-Maria Katsageorgiou

11:00AM MiPAL: Multiple-instance Passive Aggressive Learning for Identification of Attention Deficit Hyperactive Disorder from fMRI [#714]

K.V.D.J.Prabhash Kumarasinghe, Suresh Sundaram and Subbaraju Vigneshwaran

11:20AM Data-driven Study of Mouse Sleep-stages using Restricted Boltzmann Machines [#596]

Vasiliki-Maria Katsageorgiou, Matteo Zanotto, Valter Tucci, Vittorio Murino and Diego Sona

11:40AM Performance Analysis and Benchmarking of All-Spin Spiking Neural Networks [#846]

Abhronil Sengupta, Aayush Ankit and Kaushik Roy

12:00PM Metastability of Cortical BOLD Signals in Maturation and Senescence [#634]

Shruti Naik, Subbareddy Oota, Arpan Banerjee, Dipanjan Roy and Raju S. Bapi

Session health: Health applications

Thursday, May 18, 11:00AM-12:20PM, Room: Parallel 4 (Room #3+10+9), Chair: Raka Jovanovic

11:00AM Localized Sampling for Hospital Re-admission Prediction with Imbalanced Sample Distributions [#828]

Xingquan Zhu, Jose Hurtado and Haicheng Tao

11:20AM An Algorithm for Automated Segmentation for Bleeding Detection in Endoscopic Images [#868]

Eva Tuba, Milan Tuba and Raka Jovanovic

11:40AM A Method for Intelligent Support to Medical Diagnosis in Emergency Cardiac Care [#624]

Luis Alberto Souto Maior Neto, Robson Pequeno de Sousa, Carlos de Almeida, Katia Galdino, Fabricia Martins Silva and Antonio Venancio de Moura Lacerda Filho

12:00PM Latent Topic Ensemble Learning for Hospital Readmission Cost Reduction [#717]

Christopher Baechle, Ankur Agarwal, Ravi Behara and Xingquan Zhu

Session feature: Feature selection

Thursday, May 18, 11:00AM-12:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Ali Minai

11:00AM Feature Selection using Multiple Auto-Encoders [#755]

Xinyu Guo, Ali Minai and Long Lu

11:20AM A Fast Information-Theoretic Approximation of Joint Mutual Information Feature Selection [#817]

Heng Liu and Gregory Ditzler

11:40AM Multi-label Feature Selection Algorithm Based on Label Pairwise Ranking Comparison Transformation [#105]

Haotian Xu and Lingyu Xu

12:00PM Early Stabilizing Feature Importance for TensorFlow Deep Neural Networks [#110]

Jeff Heaton, Steven McElwee, James Cannady and James Fraley

Session sync: Circuits and synchrony

Thursday, May 18, 11:00AM-12:20PM, Room: Parallel 6 (Room #5+6), Chair: Jeremie Cabessa

11:00AM Spatio-Temporal Pattern Recognition in Neural Circuits with Memory-Transistor-Driven Memristive Synapses [#466]

Kurtis Cantley, Robert Ivans, Anand Subramaniam and Eric Vogel

11:20AM Emulation of Finite State Automata with Networks of Synfire Rings [#301]

Jeremie Cabessa and Paolo Masulli

11:40AM Vibrated Synchronization Features Neural Network [#591]

Kakemoto Yoshitsugu and Nakasuka Shinichi

12:00PM A Software-equivalent SNN Hardware using RRAM-array for Asynchronous Real-time Learning [#897]

Aditya Shukla, Vinay Kumar and Udayan Ganguly

Workshop WS2a: Workshop 2: Deep Learning for Music

Thursday, May 18, 1:30PM-6:30PM, Room: Parallel 2 (Room #1+13+14), Chair: Dorien Herremans; Ching-Hua Chuan

Workshop WS3: Workshop 3: Computational Aspects of Pattern Recognition and Computer Vision with Neural Systems

Thursday, May 18, 1:30PM-6:30PM, Room: Parallel 3 (Room #2+11+12), Chair: Boguslaw Cyganek; Michal Wozniak

Workshop WS4: Workshop 4: Canceled

Thursday, May 18, 1:30PM-6:30PM, Room: Parallel 4 (Room #3+10+9), Chair: Canceled

Workshop WS5a: Workshop 5: Machine Learning for Large-Scale Networks

Thursday, May 18, 1:30PM-6:30PM, Room: Parallel 5 (Room #4+7+8), Chair: Izabela Moise; Nino Antulov-Fantulin

Workshop WS6: Workshop 6: Advances in Learning from/with Multiple Learners (ALML)

Thursday, May 18, 1:30PM-6:30PM, Room: Parallel 6 (Room #5+6), Chair: Matei Basarab; Younes Bennani, Guenael Cabanes, Nistor Grozavu; Nicoleta Rogovschi; Jeremie Sublime

Workshop WS1: Workshop 1: Developmental Plasticity and Evolutionary Robotics

Friday, May 19, 9:00AM-12:20PM, Room: Parallel 1 (Cook), Chair: Angel P. del Pobil and Fumiya Iida

Workshop WS2b: Workshop 2: Deep Learning for Music

Friday, May 19, 9:00AM-12:20PM, Room: Parallel 2 (Room #1+13+14), Chair: Dorien Herremans; Ching-Hua Chuan

Workshop WS5b: Workshop 5: Machine Learning for Large-Scale Networks

Friday, May 19, 9:00AM-12:20PM, Room: Parallel 5 (Room #4+7+8), Chair: Izabela Moise; Nino Antulov-Fantulin

Index

A		Antonelli, Marco	47
Abdulaimma, Basma	34, 39	Antoniades, Andreas	49
Abolhassani, Mehdi	38	Antonik, Piotr	31
Abreu, Iuri Bonna Mauricio	14, 48	Aoki, Shunsuke	50
Adachi, Masaharu	25	Arabmakki, Elaheh	43
Adak, Chandranath	22	Araki, Ryota	50
Adhikari, Ashutosh	37	Arandjelovic, Ognjen	22, 38
Adigun, Olaoluwa	10	Araujo, Aluizio F. R.	18
Adjei, Tricia	49	Arce, Fernando	16
Affeldt, Severine	19	Ardis, Paul	28
Afshar, Saeed	36	Arora, Vipul	30
Agarwal, Ankur	51	Arscott, David	38
Agarwal, Nikita	45	Arvidsson, Ida	20
Ahmad, Touqeer	50	Asafuddoula, Md	26
Ahmadi, Arash	40	Asai, Tetsuya	32
Ahmadi, Majid	40	Ashouri, Karam	45
Ahmed, Faruk	34	ASM Iftekhar, Anam	20
Ahmed, Khadeer	27	Assis, Laura	31
Ahn, Yeojin Amy	23	Astrom, Kalle	20
Ahsan, Unaiza	21	Asua, Estibalitz	39
Aimone, James	14, 27, 31	Asuncion, Hazeline	32
Aires, Joao Paulo	30	Atahary, Tanvir	41
Aizenberg, Igor	37	Atyabi, Adham	23
Akima, Hisanao	16, 19	Audiffren, Julien	19
Al Moubayed, Noura	9	Aulia Saputra, Azhar	35
Al-Dabooni, Seaar	35	Awwad Shiekh Hasan, Bashar	9
Al-Fahad, Rakib	20	Ayache, Stephane	42
Al-Jumeily, Dhiya	34, 37, 39		
Al-Jumeily, Mohammed	34	B	
Al-Shabandar, Raghad	16	Bacciu, Davide	28
Alam, Mahbubul	30, 35, 39	Bachour, Dunia	27
Albonesi, David	10	Badue, Claudine	49
Aleksandar, Botev	26	Baechle, Christopher	51
Aleksei, Tepljakov	46	Bai, Haoli	41
Alemdar, Hande	32	Bala, Rajni	21
Alexandre, Frederic	41	Balasubramonian, Rajeev	32
Ali, Moaaz	13	Banerjee, Arpan	51
Alippi, Cesare	17, 25	Banerjee, Arunava	32, 36
Allesiardo, Robin	18	Banerjee, Bonny	13, 34, 47
Allred, Jason	50	Banijamali, Ershad	43
Almeida, Raquel	21	Bao, Wenzheng	11, 21
Alom, Zahangir	24, 35, 42, 44, 45	Bao, Xiao	36
Alonso-Betanzos, Amparo	24	Bao, Yuxiang	38
AlQaudi, Bakur	11	Baris, Turkbey	10
Alqurashi, Yousef	49	Barney, Erin	23
Altahhan, Abdulrahman	23	Baro, Xavier	23, 42
Amende, Karl	28	Barreto, Cephas	45
Amirsoleimani, Amirali	40	Barros, Pablo	9, 15
An, Yuan	18	Barros, Rodrigo	15, 28, 30, 31
Anderson, Charles	45	Barth, Erhardt	32
Anderson, Keith	39	Bashbaghi, Saman	35
Ando, Kota	32	Bashivan, Pouya	36
Angelov, Plamen P.	40	Bassani, Hansenclever F.	18
Angelov, Plamen	13, 14	Basterrech, Sebastian	17
Anguita, Davide	10	Basterretxea, Koldo	39, 47
Ankit, Aayush	51	Bastos-Filho, Carmelo	24
		Basu, Arindam	26

Baumgartner, Christian F.	30	Cabessa, Jeremie	51
Baydin, Atilim Gunes	41	Cadik, Martin	50
Bebis, George	50	Cagnini, Henry	31
Beck, Diane	18	Cai, Zhihua	11
Becker, Willian	31	Caldwell, Darwin	47
Behara, Ravi	51	Calhoun, Vince	12, 43
Behera, Laxmidhar	30	Cambria, Erik	31, 38
Bellec, Guillaume	29	Campilho, Aurelio	50
Beltz, Hayley	21	Campr, Pavel	50
Ben Amar, Chokri	17	Cangelosi, Angelo	42
Benabdeslem, Khalid	31	Cannady, James	51
Benedek, Csaba	50	Cantley, Kurtis	51
Bengio, Yoshua	10	Canuto, Anne	45
Benini, Luca	16	Cao, Bokai	14
Benjaminsson, Simon	41	Cao, Jianting	21
Benkabou, Seif-Eddine	31	Cardoso, Vinicius	49
Bennani, Younes	46	Carlson, Kristofor	14, 31
Benton, Ryan	28	Carreira-Perpinan, Miguel	44
Berriel, Rodrigo	48	Carrere, Maxime	41
Bertegi, Shems	11	Carse, Jacob	39
Bevilacqua, Vitoantonio	50	Carvalho, Eduardo	36
Bezerra, Eduardo	31	Carvalho, Hanna	36
Bharadwaj, Skanda S.	21, 26	Carvalho, Rommel	9
Bhatnagar, Shalabh	10, 45	Cassimiro, Jackson	38
Bian, GuiBin	13	Catchpoole, Daniel	12
Bianchi, Filippo Maria	17, 48	Cavigelli, Lukas	16
Bidelman, Gavin	36	Cazorla, Miguel	13
Biehl, Michael	42	Ceddia, M.	38
Blumenstein, Michael	22, 35	Celecia, Alimed	36
Bo, Li	44	Cerri, Ricardo	14, 32, 48
Boecker, Joachim	38	Cervellera, Cristiano	25
Boehm, Johanna	23	Cestari, Daniel Moreira	9
Boldt, Francisco de Assis	39	Chairez, Isaac	50
Bolon-Canedo, Veronica	24	Chakravarthy, V. Srinivasa	37
Boracchi, Giacomo	25	Chan, Jan Y. K.	10
Bose, Sourabh	45	Chang, J. Morris	46
Bostrom, Henrik	28	Chang, Shiyu	18
Botev, Aleksandar	19	Chanussot, Jocelyn	31
Botsch, Michael	20	Chanyaswad, Thee	46
Bottegal, Giulio	11	Chao, Zhang	44
Bounyong, Souksakhone	38	Chartier, Sylvain	33
Bowen, Zhou	23	Chateau, Thierry	16
Boybat, Irem	25	Chaudhuri, Bidyut Baran	22
Boyer, Destiny	32	Chaudhury, Santanu	16
Braga, Dinart	22	Chen, Badong	35
Brandao, D.	38	Chen, Benhui	43
Braytee, Ali	50	Chen, Chuanming	38
Breitwieser, Oliver	29	Chen, Fang	19
Britto, Alceu S.	14	Chen, Gang	45
Brizuela, Carlos A.	11	Chen, Guangliang	12
Brown, Gavin	24	Chen, Guibin	31
Bruer, Grant	40	Chen, Hong	35
Brunetti, Antonio	50	Chen, Hui	22
Bruno, Canitia	31	Chen, Jiешan	31
Bu, Yijie	36	Chen, Jr-Chang	34
Burt, Ryan	18	Chen, Kay-Yut	11
Bustios, Paul	47	Chen, Weizheng	22
		Chen, Wei	33, 41
		Chen, Xiaoming	27
		Chen, Xi	32
C			
Cabanes, Guenael	46		

Chen, Yiqiang	39	Datta, Suman	40
Chen, Yiran	29	Davey, Neil	47
Chen, Zhenghao	19	David, Barber	19, 26
Cheng, Fei	21	Davis, Delmar	32
Cheng, Guan-Lun	34	de Almeida, Carlos	51
Cheng, XiaoRan	13	de Araujo, Rodrigo	34
Cheong Took, Clive	38, 49	de Carvalho, Francisco	34
Cherkassky, Vladimir	42	de Chazal, Philip	25
Chetan, Manjesh	11	De Choudhury, Munmun	21
Cheung, Catherine	27, 37	de La Bourdonnaye, Francois	16
Cheung, Edward	42	de Moura Lacerda Filho, Antonio Venancio	51
Chevaleyre, Yann	50	de Souto, Marcilio	35
Chin, Wei Hong	35	De Souza, Alberto F.	49
Chiu, Ching-Yu	36	de Souza, Cleidson	36
Choe, Yoonsuck	15, 36, 42	de Souza, Renata	35
Choi, Jinho D.	49	Debes, Klaus	28
Choi, Kup-Sze	12	Deepak, Venugopal	11
Choi, Minkyu	15	Del Campo, Ines	47
Chokshi, Falgun H.	49	del Campo, Ines	39
Chu, Zhenzhong	39	Del-Moral-Hernandez, Emilio	45
Chung, Hoon	37	Delhaisse, Brian	47
Chung, Yuk Ying	27	Deng, Jeremiah	45
Churamani, Nikhil	15	Deng, Shuiguang	14
Ciancarini, Paolo	16	Deng, Zhidong	31
Cizek, Petr	15	Desrosiers, Christian	47
Clarke, Daniel	24	Dessalles, Jean-Louis	26
Claussen, Holger	16	Dewei, Li	12
Clement, Karine	50	Deyu, Tang	27
Cohen, Gregory	36	Dhar, Sauprik	42
Colbes, Jose	11	Di, Yao	44
Colombini, Gustavo Giordano	48	Diment, Aleksandr	23
Conn, Brandon	22	Ding, Caiwen	20
Conor, Mallucci	34	Dinkel, Heinrich	37
Cook, Daniel	24	Ditzler, Gregory	51
Cope, Alex	47	Dmitry, Kangin	37, 38
Cornuejols, Antoine	26	Dolcos, Florin	18
Cousineau, Denis	33	Dolph, Chester	30
Coutinho, Eduardo	40	Dominguez, Enrique	13
Covoos, Thiago	32	Dominguez-Morales, Juan Pedro	46
Cox, Jonathan	14, 17	Dominguez-Morales, Manuel Jesus	46
Crecchi, Francesco	28	Donaldson, Jonathon	31
Cremer, Nico	21	Dong, Lu	48
Cuayahuitl, Heriberto	39	Dongkuan, Xu	12
Cudic, Mihael	18	Dongsheng, Yang	23
Cui, Lin	39	dos Santos, Cicero	39
Curbelo Montanez, Casimiro Aday	34, 39	Dou, Tong	14
Custodio, Fabio	11	Dougherty, Alan William	11
D		Douglass, Scott	41
D'Alto, Viviana	25	Dourado, Aloisio	9
D'Attoma, Benedetta	50	Draelos, Timothy	14
Dai, Bo	41	Draper, Jeffrey	20
Dai, Li-Rong	36	Du, Bo	10, 22
Dai, Lizhen	34	Du, Changde	18
Dai, Xiaolin	19	Du, Changying	18
Dale, Matthew	29	Du, Jun	36
Damaraju, Eswar	43	Duan, Fuqing	47
Dang-Ha, The-Hien	48	Dukkipati, Ambedkar	12
Daniel Zeng, Dajun	20	Dumpala, Sri Harsha	20
Darmiton da Cunha Cavalcanti, George	45	Duque-Belfort, Felipe	18
		Durand, Audrey	11

Duro, Richard J.	31	Ferreira, Bruno	36
Duru, Bruno Matarazzo	38	Ferro, Milla	24
Dutta, Jayanta	13	Florero-Salinas, Wilson	12
Duun-Henriksen, Jonas	21	Fokoue, Ernest	18
Dyer, Robert	20, 21	Follett, David	31
E		Follett, Pamela	31
Ebersbach, Dirk	28	Folly, Komla	39
Echanobe, Javier	39, 47	Forster, Dennis	43
Eckert, Claudia	44	Fouladgar, Mohammadhani	30
Eduard, Netsajev	46	Fraley, James	51
Eduard, Petlenkov	46	Franco, Leonardo	24
Edwardsen, Vegard	49	Frederickson, Christopher	25
Eftaxias, Konstantinos	38	Fu, Qinbing	17
Eicher, Tara	39	Fulop, Aniko	21
Eisenbach, Markus	28	Fung, Sai-Fu	13
Ejbali, Ridha	17	G	
El baghdadi, Ibtissame	46	Gaber, Mohamed Medhat	14
Eladel, Asma	17	Gagne, Christian	11
Elahian, Bahareh	20	Galdino, Katia	51
Eleftheriou, Evangelos	25, 43	Galiardi, Meghan	27
Elizondo, David	35	Gan, Wenyang	39
Ellis, John	24	Gandhi, Sunil	15
Elmasri, Ramez	30	Ganesan, Ashwinkumar	41
Elsaw, Mark	23	Ganguly, Udayan	52
Elyan, Eyad	14	Gao, Chenlong	39
Enembreck, Fabricio	14, 46	Gao, Junbin	16
Eraisha, Ghadir	44	Gao, Min	14
Erdi, Peter	21	Gao, Tian	36
Escalante, Hugo Jair	23, 42	Gao, Xunzhang	22
Escalera, Sergio	23, 42	Garcia Ortiz, Michael	20
Escobar, Maria-Jose	47	Garcia, Jorge-Luis	50
Essa, Irfan	21	Garcia-Garcia, Alberto	13
Esteban, Domingo	47	Garcia-Rodriguez, Jose	13
Eyben, Florian	23	Garik, Markarian	37, 38
F		Gatti, Nicola	18
Facon, Jacques	19	Ge, Fujiang	18
Fagan, David	16	Geach, James	47
Fahimi Hnazaee, Mansoureh	49	Gelenbe, Erol	23
Faigl, Jan	15, 33, 49	Genc, Sahika	28
Falchetto, Mirko	25	George, Koshy	21, 26
Fan, Hsiao-Tien	24, 29	Gepperth, Alexander	21
Fan, Weidi	22	Gergel, Peter	31
Fan, Yetian	18	Ghaderi, Amir	30
Fang, Xianghong	41	Ghods, Ali	43
Fantinato, Marcelo	38	Ghosh, Tomojit	14
Farabi, Khan Mohammad Al	11	Golcalves, Michael A.	49
Farkas, Igor	31	Gomez-Donoso, Francisco	13
Fedorov, Alex	43	Gomez-Rodriguez, Francisco	46
Feitosa Neto, Antonino	45	Gong, Dawei	19
Feng, Dagan	19	Gonzalez, Rene	36
Feng, Weijiang	15	Goswami, Gaurav	35
Fenton, Michael	16	Goulet, Marc-Andre	33
Feraud, Raphael	18	Granada, Roger	28, 30
Ferens, Ken	22, 30	Granger, Eric	35
Fergus, Paul	34	Green, Robert	20, 21
Fernandes, Bruno	18, 24	Grew, Philip	37
Fernandes, Eraldo	39	Griessl, Rene	48
Ferreira Junior, Jair	36	Grimm, Jason	48
		Gross, Horst-Michael	28

Grossi, Valerio	45	Hassan, Amr M.	29
Grosu, Radu	30	Hatzithimiou, Nikos	46
Grozavu, Nistor	23, 46	Hava, Siegelmann	11
Gruebl, Andreas	29	Hayaru, Shouno	17
Gu, Xiaowei	14	Hays, Lydia	31
Guan, Linting	46	He, Ben	35
Guan, Naiyang	15	He, Haibo	21, 34, 38, 46
Guarnieri Correa, Diego	46	He, Hongmei	44
Gubbi, Jayavardhana	24	He, Huiguang	18
Guclu, Umut	42	He, Lirong	15
Gucluturk, Yagmur	42	He, Zhiqiang	18
Guedes, Gustavo	31	Heaton, Jeff	51
Guettler, Maurice	29	Heileman, Gregory	40
Gui, Wenming	38	Hein, Daniel	47
Guidolini, Ranik	49	Hentschel, Alexander	47
Guillen-Ramirez, Hugo A.	11	Herman, Pawel	41
Guilley, Sylvain	46	Hermans, Michiel	31
Guimaraes, Silvio	21	Heuser, Annelie	46
Guiqin, Yuan	44	Heyden, Anders	20
Gulcehre, Caglar	10	Higgins, Chunhui	42
Gulshad, Sadaf	17, 35	Hill, Aaron	31
Guo, Dongsheng	33	Hirano-Iwata, Ayumi	19
Guo, Ping	47	Hocking, Alex	47
Guo, Xinjie	43	Hollensen, Paul	33
Guo, Xinyu	51	Hollmen, Jaakko	26
Guo, Yi	46	Hong, Qiao	17
Guotao, Hui	23	Horikawa, Yo	36
Gurney, Kevin	47	Horta, Bruno	11
Gutierrez-Galan, Daniel	46	Hou, ZengGuang	13
Gutstein, Steven	14	Houthuys, Lynn	19
Guy, Lever	26	Hu, Baifan	46
Guyon, Isabelle	23, 42	Hu, Chunyu	39
		Hu, Lisha	39
H		Hu, Mantian	42
Habib, Zulfiqar	13	Hu, Ruimin	37
Haddad, D.	38	Hu, Ruiqi	13
Haelterman, Marc	31	Hu, Weiwei	22
Haerken, Hasitieer	47	Hu, Xiaohua	18
Haerle, Dieter	30	Hu, Xiaolin	32
Hagemeyer, Jens	48	Hu, Xuemin	46
Hager, Pascal	16	Hu, Yongli	16
Hagiwara, Masafumi	29	Huang, Bonan	19
Haishuai, Wang	39	Huang, De-Shuang	11, 21
Haker, Martin	15	Huang, Guang-Bin	25
Haldekar, Mandar	41	Huang, Qiang	40
Hamedani, Kian	40	Huang, Shudong	14
Hamey, Len	44	Huang, Thomas	18
Han, Deqiang	18	Huang, Wenjun	37
Han, Jing	23	Huang, Yi	37
Handmann, Finn	21	Huber, Manfred	45
Handmann, Uwe	21	Hung, Patrick C. K.	38
Hao, Jie	12	Huo, Shuwei	37
Hardaker, Pamela	35	Hurtado, Jose	51
Harding, Bradley	33	Husmann, Dan	29
Harno, Hendra Gunawan	26	Husmann, Kai	29
Hartel, Andreas	29	Hussain, Abir Jaafar	16, 34, 37, 39
Hartmann, Stephan	29	Hussain, Abir	34
Hasan, Raqibul	41	Hussein, Ahmed	14
Hasan, Sadid	18	Hutchinson, Brian	34
Hasegawa, Osamu	48	Hwu, Tiffany	15

I

Iannella, Nicolangelo	43
Ichimura, Takumi	31
Ide, Hidenori	34
Ieracitano, Cosimo	21
Iftekharuddin, Khan	30, 35, 39
Ikebe, Masayuki	32
Ilin, Roman	16
Insu, Song	37
Isaksson, Johan	20
Isbell, Jacob	15
Isele, David	30
Ishiguro, Hiroshi	49
Ishii, Masato	35
Ishikawa, Satoru	21
Islam, Mohammad Maminur	11
Itoh, Yoshitaka	25
Ivans, Robert	51
Iyer, Laxmi	26

J

Jade, Hind	34, 39
Jain, Anant	42
Jaiswal, Akhilesh	32
Jakobovic, Domagoj	46
James, Conrad	14, 27, 31
Jan, Gene Eu	9
Jaques Jr., Julio	42
Jayawardene, Iroshani	39
Jayne, Chrisina	14
Jenssen, Robert	17, 48
Jerez Aragones, Jose Manuel	24
Jerry, Matthew	40
Jesus, Luan F. R.	49
Jia, Fei	38
Jia, Ruixi	14
Jiang, He	38
Jiang, Hui	41
Jiang, Jian	22
Jiang, Xiang	46
Jiang, Yongli	11
Jiang, Yuechi	15
Jianhui, Huang	44
Jimenez-Fernandez, Angel	46
Jin, Long	47
Jin, Yingyezhe	27
Jin, Zhanpeng	24, 29
Jincheng, Li	27
Jingjing, Tang	12
Jinglu, Hu	12, 19, 43
Jingping, Bi	44
Johansson, Ulf	28
Johnson, Jeremy	43
Jorgensen, Erik	45
Joseph, Ajin George	10, 45
Jovanovic, Raka	27, 51
Jovic, Alan	46
Ju, Fujiao	16
Jun, Wu	39

K

Kabbara, Jad	35
Kadri, Hachem	19
Kamada, Shin	31
Kampffmeyer, Michael	48
Kaneda, Kazufumi	49
Kang, Tae Seung	32
Kantardzic, Mehmed	43
Kaplan, Frederic	34
Karagod, Vinay	24
Karassenko, Vitali	29
Kardan, Navid	14
Karevan, Zahra	19
Karhunen, Juha	21
Karkkainen, Tommi	26
Katragadda, Satya	28
Katsageorgiou, Vasiliki-Maria	51
Kaushik, Pramod	41
Kawasaki, Fumitaka	32
Kaya, Gokhan	36
Ke, Yuanzhi	29
Keight, Robert	16, 34
Keivani, Omid	36
Kennedy, Paul	12, 24, 50
Kerzel, Matthias	13, 15
Keshmiri, Soheil	49
Khan, Muhammad Salman	22, 30
Khan, Noel	35
Kheirkhah, Parastoo	26
Kikuchi, Mitsuru	49
Kim, Daesik	13
Kim, Jong-Hwan	17, 26, 27, 35
Kim, Junae	35
Kim, Minah	23
Kim, Seunghyeon	32
Kim, Wooyoung	32
King, Irwin	9, 42
King, Jung-Tai	36
Kinghorn, Philip	18
Kinjo, Mitsunaga	16
Kirby, Michael	14
Kiselev, Mikhail	43
Kitazono, Jun	23, 25
Kjaer, Troels W.	21
Klaehn, Johann	29
Kleider, Mitja	29
Klibisz, Aleksander	40
Cluever, Christina	16
Cluever, Juergen	16
Knott, Alistair	48
Knyazev, Boris	32
Ko, Jong Hwan	43
Koerich, Alessandro	14
Koh, Guan	37
Kohli, Naman	44
Koiwai, Kazushige	21
Koke, Christoph	29
Kolosnjaji, Bojan	44
Kominami, Yuki	33
Konar, Amit	34, 47

Kong, Qiuqiang	40	Lendasse, Amaury	25
Kong, Shumin	33	Leroy, Vincent	32
Kong, Xiangnan	41	Leung, Alex Po	10
Kopparapu, Sunil Kumar	20	Leung, Frank H. F.	15
Koprinska, Irena	22, 48	Levesque, Julien-Charles	11
Kosch, Harald	23	Levine, Daniel	11
Kosko, Bart	10, 43	Lewis, Noah	12
Koujiba, Miku	49	Li, Aifen	33
Kounavis, Michael	44	Li, Beibin	23
Kozma, Robert	16	Li, Chengjun	11
Kramer, Oliver	32, 50	Li, Chongya	11
Krawczyk, Bartosz	28	Li, Dan	12
Krichmar, Jeffrey	15	Li, Dayuan	21
Kriener, Laura	29	Li, Dong	25
Krishna Mohan, C.	37	Li, Gang	25
Kubo, Yoshimasa	36	Li, Guangxi	9
Kubota, Naoyuki	35	Li, Hui	38
Kubota, Shigeru	19	Li, Jialing	40
Kucera, Stepan	16	Li, Jianmin	32
Kudithipudi, Dhireesha	18, 31, 39	Li, Jiayi	27
Kumar, Arjun	42	Li, Jinyan	16
Kumar, R. Chandan	21, 26	Li, Jiqian	46
Kumar, Vinay	52	Li, Ji	20
Kumarasinghe, K.V.D.J.Prabhash	35, 51	Li, Jun	48
Kung, Jaeha	43	Li, Kan	43
Kung, Sun-Yuan	37, 46	Li, Kuan	36
Kurita, Takio	34	Li, Mengya	42
Kwak, Nojun	13	Li, Mingze	47
Kwok, James T.	43	Li, Peng	27, 30, 37
		Li, Qiudan	20
L		Li, Shuai	17, 47
La Foresta, Fabio	21	Li, Weite	12, 19, 43
Laaksonen, Jorma	21	Li, Wentao	14
Lachaud, Antoine	46	Li, Xiang	22
Lachmair, Jan	48	Li, Xuelong	34
Lahiri, Rimita	34	Li, Yang	11
Lai, Jian-Huang	37, 38	Li, Yiming	22
Lall, Brejesh	16	Li, Yuan	15
Lam, Kin-Man	12	Li, Yuying	42
Lamb, Christopher	14	Li, Zherong	22
Lansner, Anders	41	Li, Zhe	20
Lap-Pui, Chau	12	Liang, Chao	37
Launey, Thomas	43	Liang, Peifeng	19, 43
Lauren, Paula	25	Liang, Qiubin	21
Laws, Andy	16	Liang, Shaoyi	18
Le Gallo, Manuel	25	Liang, Wen-Bin	37
Le, Linh	12	Liang, YingHong	38
Le, Tuan Anh	41	Liao, Liang	30
Leake, Yulo	34	Liao, Yuntao	21
Leblebici, Yusuf	43	Lim, Chee Peng	40
Lechevallier, Yves	34	Lim, King Hann	26
Lee, Jewel	32	Lima, Clodoaldo A. M.	35, 38
Lee, Minho	29	Lin, Chin-Teng	36
Lee, Minwoo	45	Lin, Chingnung	34
Lee, Myunggi	13	Lin, Cui	23
Lee, Sung Joo	37	Lin, Fei	22
Lee, Timothy	49	Lin, Tong	13
Legenstein, Robert	29	Lin, Xinjie	33
Lehman-Rubio, Alejandro	27, 37	Lin, Yang	13
Lehmann, Christian	36	Lin, Zhouchen	13

Linares-Barranco, Alejandro	46	Lynch, David	16
Ling, Yuan	18	Lyu, Michael	9
Linshan, Shen	23	Lyu, Siwei	17
Linusson, Henrik	28		
Lipasti, Mikko	45	M	
Lisboa, Paulo	39	M. Hasani, Ramin	30
Liu, Bingquan	41	M. Taha, Tarek	35, 42, 44, 45
Liu, Bin	15, 41	M. Zarah, Abdullah	39
Liu, Chang Hong	13	Ma, Sihan	18
Liu, Chi	22	Ma, Wanli	9, 37, 49
Liu, Ding	18	Ma, Xiaofeng	14
Liu, Donghang	19	Maass, Wolfgang	29
Liu, Gang	11	Maccio, Danilo	25
Liu, Guang	27	Madadi, Meysam	42
Liu, Heng	51	Madany Mamlouk, Amir	15
Liu, Jingshuang	21, 29	Mahadevuni, Amarnath	30
Liu, Mengwen	18	Mahajan, Harsh	44
Liu, Pengfei	31	Maida, Anthony	27
Liu, Shaowu	25	Maiorino, Enrico	48
Liu, Shijun	15	Maita, Ana R. C.	38
Liu, Simeng	16	Majumdar, Angshul	17, 34, 35, 42
Liu, Wei	50	Malcangi, Mario	37
Liu, Xiaobo	11	Malki, Heidar	38
Liu, Xiaoli	22	Mamdouh, Pezhman	45
Liu, Xinyue	41	Mammone, Nadia	21
Liu, Xin	30	Man, Hong	34
Liu, Xuan	46	Mandic, Danilo	49
Liu, Yonghe	10	Mandziuk, Jacek	14
Liu, Yongzhi	38	Manohar, Rajit	10
Liu, Yufei	39	Manry, Michael T.	26
Liu, Zhentao	11	Mantovani, Rafael Gomes	14
Liu, Zhenyu	10	Maple, Carsten	44
Livi, Lorenzo	17	Marana, Aparecido	26
Liwicki, Marcus	33	Marcacini, Ricardo	46, 47
Liyanagedera, Chamika	32	Marshall, James	47
Lofstrom, Tuve	28	Marsland, Stephen	12
Lomuscio, Alessio R.	30	Martin-del-Campo, Sergio	14
Long, Fei	23	Martinetz, Thomas	15, 32
Long, Guodong	13	Martinez, Victoria	39, 47
Long, Jun	36	Martinez-Perez, Israel M.	11
Long, Wei	11	Martinez-Ramon, Manel	40
Looney, David	49	Martinez-Villasenor, Ma de Lourdes	41
Lopes, Andre Teixeira	48	Martins Silva, Fabricia	51
Lopez-Garcia, Tania Beatriz	17	Marzouki, Kirmene	11
Lopez-Rubio, Ezequiel	13	Maslov, Alexandr	26
Loza-Lopez, Martin de Jesus	17	Massar, Serge	31
Lu, Jie	12, 13, 40	Masulli, Paolo	51
Lu, Long	51	Matei, Basarab	46
Luan, Shengyang	34	Matsubara, Takashi	25
Lucke, Jorg	43	Matwin, Stan	46
Ludwing, Simone	46	Matyasko, Alexander	12
Lueckehe, Daniel	32	Mauch, Christian	29
Lughofer, Edwin	40	Maurizio, Filippone	44
Lukowicz, Paul	33	Maybank, Stephen	30
Lunn, Janet	16	Mayr, Christian	29
Luo, Bo	37	Mazzei, Andrea	34
Luo, Chaomin	9, 25, 39	McAuley, Julian	42
Luo, Xin	17, 47	McCane, Brendan	48
Luo, Zhigang	15	McDonald, Nathan	31
Luque-Baena, Rafael Marcos	13, 24	McDonnell, Mark	25, 27

McElwee, Steven	51	N	
McGough, Andrew Stephen	9	N. Psaromiligkos, Ioannis	35
McIlroy, Stuart	33, 36	Na, Taesik	43
Mehnen, Jorn	44	Nadarajan, Parthasarathy	20
Mehta, Neil	45	Naegle, John	31
Meier, Karlheinz	29	Nagar, Atulya K.	34, 47
Melo, Gerard de	15	Nagpal, Shruti	18, 44
Mendonca, Ana Maria	50	Nagy, Balazs	50
Meneguzzi, Felipe	28, 30	Naik, Manali	37
Menelau Oliveira e Cruz, Rafael	45	Naik, Shruti	51
Meng, Helen	31	Nakamura, Satoshi	50
Meng, Qinxue	12, 24	Nakamura, Takashi	49
Menotti, David	19	Nakanishi, Junya	49
Mentens, Nele	46	Nakano, Felipe Kenji	32
Merkel, Cory	29	Nallapu, Bhargav Teja	9
Merrikh Bayat, Farnood	43	Narayanan, Surya	32
Miao, Yao	21	Narayanan, Vignesh	45
Mieth, Thomas	48	Naresh, Malla	35
Miklos, Ruzinko	11	Navarin, Nicolo	10
Milicka, Pavel	15	Nelson, Caleb	34
Miller, Julian	29	Nelson, David	22
Min, Erxue	36	Neocleous, Andreas	42
Minai, Ali	51	Neocleous, Costas	42
Miner, Nadine	14	Ng, Hwei Geok	13
Miro-Amarante, Lourdes	46	Nguyen, Binh	9, 37
Mishra, Anurag	21	Nguyen, Dang	9, 37
Mitchell, Melanie	13	Nguyen, Khuong	36
Mo, Hongwei	9	Nguyen, Son	26
Moczulski, Marcin	10	Ni, Lionel M.	43
Mohajerin, Nima	30	Ni, Zhen	35
Mohan, Mahesh	9	Nie, Feiping	34
Mohieldeen, Yasir	27	Nishimura, Haruhiko	49
Moirangthem, Dennis Singh	29	Niwano, Michio	19
Molina-Cabello, Miguel A.	13	Nix, Robin	26
Montague, Paul	35	Noack, Raymond	11
Monteiro, Juarez	28, 30	Nobukawa, Sou	49
Monteleoni, Claire	9	Nogueira, Bruno	46, 47
Morabito, Francesco C.	21	Noh, Yung-Kyun	32
Moradi, Saber	10	Noore, Afzel	44
Morais, Alessandra	33	Noriyuki, Murakami	25
Moraitis, Timoleon	25	Nowotny, Thomas	47
Moreira, Tayana	38		
Morelli, Davide	28	O	
Morie, Takashi	20	O'Boy, Fionntan	37
Moriya, Satoshi	19	O'Neill, Michael	16
Morrell, Mary	49	Oates, Tim	15, 23, 41, 42
Morris, Daniel	49	Oehmcke, Stefan	32, 50
Motomura, Masato	32	Ogasawara, Eduardo	31
Mu, Bin	30	Ogata, Tetsuya	42
Mu, Chaoxu	21	Ogawa, Hideki	33
Mueller, Eric	29	Oh, Yoo Rhee	37
Mueller, Paul	29	Ohkawa, Takenao	25
Mukhopadhyay, Saibal	43	Ojha, Tushar	40
Murase, Kazuyuki	33	Olinsky, Craig	23
Murena, Pierre-Alexandre	26	Oliva, Jefferson	36
Murino, Vittorio	51	Oliveira, Edenilton Lima de	38
Musolesi, Mirco	11	Oliveira, Josias	49
Mutz, Filipe	49	Oliveira, Luiz S.	14
		Oliveira, R.	38
		Oliveira, Renato	22

Oliveira-Santos, Thiago	39, 48	Perez-Astudillo, Daniel	27
Olsson, Roland	48	Perlovsky, Leonid	11
Olulope, Paul	39	Pessin, Gustavo	36
Omori, Toshiaki	23	Peter L., Choyke	10
Oneto, Luca	10	Peter Widemann, David	42, 45
Onishi, Tetsu	25	Petkov, Nicolai	42
Oota, Subbareddy	51	Petrot, Frederic	32
Oprea, Sergiu-Ovidiu	13	Petrovici, Mihai A.	29
Orchel, Marcin	19	Pham, Trung Duy	49
Ordukhanov, Alan	37	Philippesen, Anja	9
Orimo, Kentaro	32	Pi, Dechang	38, 39
Oros, Nicolas	15	Pianto, Donald	9
Orosa, Flavia	39	Piazza, Francesco	39
Orts-Escolano, Sergio	13	Picek, Stjepan	46
Osakabe, Yoshihiro	16	Piche, Steve	48
Ozawa, Seiichi	23, 25	Pimentel, Bruno	35
Ozerin, Alexei	43	Pingkun, Yan	10
P		Pinheiro, E.	38
Paiva, Antonio	28	Pinto, Walter Jose	32
Palade, Vasile	23	Pires, Rafael	26
Paladino, Stefano	18	Plank, James	40
Pan, Hengyue	41	Plis, Sergey	12, 43
Pan, Shirui	13	Plumbley, Mark D.	40
Panda, Priyadarshini	33	Poggi, Francesco	16
Pandey, Gaurav	12	Polikar, Robi	25
Pandey, Prateekshit	44	Pomares, Luis	27
Pang, Na	25	Ponce, Hiram	41
Pang, Shaoning	45	Pondenkandath, Vinaychandran	33
Pantazi, Angeliki	43	Porrman, Mario	48
Papa, Joao	26	Porto, Fabio	31
Pappa, Gisele Lobo	32	Potter, Michael	26
Parascandolo, Giambattista	23	Poupart, Pascal	43
Parchami, Mostafa	30, 35	Prabhakaran, Gokulraj	44
Parihar, Abhinav	40	Prasad, Mukesh	40
Park, Frank	32	Prasong, Pusit	13
Park, Gyeong-Moon	26	Pratama, Mahardhika	40
Park, Jeon Gue	37	Prater, Ashley	33
Park, Jin-Man	27	Priego, Blanca	31
Parker, Alice	20, 45	Prieto, Abraham	31
Partzsch, Johannes	29	Prifti, Edi	19
Pasa, Luca	29	Principe, Jose	14, 18, 34, 43
Passos, Henrique dos Santos	38	Principi, Emanuele	39
Passow, Benjamin	35	Prost-Boucle, Adrien	32
Patrocinio Jr, Zenilton	21	Pu, Xiaojia	31
Patton, Robert	30	Pulver, Andrew	17
Pau, Danilo	25	Purushothaman, Balamuralidhar	24
Pechenizkiy, Mykola	26	Q	
Pei, Yulong	26	Qian, Yanmin	37
Peijie, Yin	17	Qiang, Gao	23
Pellegrini Ribeiro, Marcos	39	Qikui, Zhu	10
Peng, Qinke	18	Qin, Zhengda	35
Peng, Xuan	22	Qiu, Qinru	20, 27
Peng, Yiming	45	Qiu, Shi	32
Pentland, Alex	36	Qiu, Tianshuang	34
Pequeno de Sousa, Robson	51	Qu, Guangzhi	25
Perdue, Gabriel	30	Quan, Hao	37
Pereira, Adriano	22	Quiles, Marcos	33
Pereira, Danilo	18	Quinn, Max	13
Peres, Sarajane M.	35, 38		

R

Rabelo, Ricardo	38
Rad, Naeem	16, 34
Radziszowski, Stanislaw	26
Raghavan, Krishnan	39
Raghavan, Vijay	28
Raghunathan, Vijay	26
Rahimi, Razieh	42
Rahman, Md	48
Rahman, Nayim	41
Rajpal, Ankit	21
Ram, Parikshit	36
Ramasamy, Savitha	37
Rana, Mashud	48
Rana, Priyanka	37
Rao, A. Ravishankar	15, 24
Rassweiler, Ralph	15
Rastin, Parisa	46
Rauber, Thomas W.	39
Ravi, Lakshmi	18
Raychowdhury, Arijit	40
Raytchev, Bisser	49
Razavi-Far, Roozbeh	23
Reams, Randall	15
Reddy, Tharun	30
Reinhart, Felix	9
Remeseiro, Beatriz	50
Ren, Ao	20
Ren, Yazhou	28, 41
Ren, Yi	21
Restelli, Marcello	18
Reznik, Leon	26
Rhodes, Anthony	13
Riezzo, Giuseppe	50
Riezzo, Marco	50
Rivas-Perez, Manuel	46
Robert, Kozma	11
Robles-Kelly, Antonio	44
Rodrigues, Alexandre	39, 48
Rodrigues, Irving	39
Rogovschi, Nicoleta	23
Rohrbein, Florian	40
Romero, Enrique	23
Rong, Wenge	14, 21, 29
Rosa, Joao Luis Garcia	9, 36, 47
Rossi, Davide	16
Rougier, Nicolas P.	9
Roveri, Manuel	25
Roy, Dipanjan	51
Roy, Kaushik	26, 32, 33, 50, 51
Roy, Sourjya	26
Rozo, Leonel	47
Ruan, Weijian	37
Ruiz-Cruz, Riemann	17
Ruiz-Garcia, Ariel	23
Runkler, Thomas	47
Ruoyu, Wang	27
Russo, Francesco	50
Rzayev, Tayyar	10

S

S. Fard, Farzaneh	33
S. Nobandegani, Ardavan	35
Sabathe, Romain	40
Sabo, Chelsea	47
Sabourin, Robert	11, 14, 45
Sachara, Fabian	21
Sadhu, Arup Kumar	47
Saha, Sriparna	34
Saif, Mehrdad	23
Saito, Toshimichi	50
Sakti, Sakriani	50
Sakuraba, Masao	16
Salgado, Ivan	50
Salles, Rebecca	31
Samad, Manar	30
Samaranayake, V. A.	39
Sanchez, Edgar N.	17
Sanchez-Marono, Noelia	24
Sandin, Fredrik	14
Santana, Alessandra	33
Santana, Andre	38
Santos Neto, Pedro	38
Santos, Daniel	26
Saralajew, Sascha	25
Sarangapani, Jagannathan	39, 45
Sardina, Sebastian	20
Sargano, Allah Bux	13
Sato, Atsushi	35
Sato, Ryuji	50
Sato, Shigeo	16, 19
Satoh, Seiya	22
Satoshi, Suzuki	17
Saxena, Vishal	41
Scardapane, Simone	40
Schemmel, Johannes	29
Schiefer, Stefan	29
Schizas, Christos N.	42
Schmitt, Maximilian	23
Schmitt, Sebastian	29
Scholze, Stefan	29
Schroeder, Anna	29
Schuller, Bjoern	23, 40
Schuman, Catherine	33, 40
Sebastian, Abu	25
Sechidis, Konstantinos	24
Seera, Manjeevan	40
Seichter, Daniel	28
Sengupta, Abhronil	51
Sesselmann, Maximilian	28
Sethi, Tegjyot Singh	43
Severa, William	14
Shafiee, Ali	32
Shah, Chinmay	38
Shah, Harshil	19
Shahi, Ahmad	45
Shang, Ming-sheng	17, 47
Shao, Ling	18
Sharif, Mohammad	19
Sharma, Hrishikesh	24

Sharma, Manoj	16	Steele, Iain	37
Sharma, Nabin	35	Stepney, Susan	29
Sharma, Rohit	38	Sterzing, Volkmar	47
Shboul, Zeina	30	Stiber, Michael	32
Shekarforoush, SeyedHamid	20, 21	Stoekert, Ulrike	28
Shen, Jianfei	39	Stoffl, Lucas	40
Shen, Yuan	42	Strahl, Erik	15
Shi, Bertram	28, 47	Stricker, Ronny	28
Shic, Frederick	23	Strukov, Dmitri	43
Shim, Myung Seok	37	Stump, Ethan	14
Shin, Bonggun	49	Su, Chun-Yi	22
Shin, Eunsung	24	Su, Zhaozhu	33
Shinichi, Nakasuka	52	Subramaniam, Anand	51
ShklyaeV, Alexander	26	Subramanyam, Guru	24
Shrestha, Amar	27	Suhara, Yoshihiko	36
Shrivastava, Manish	29	Sumioka, Hidenobu	49
Shukla, Aditya	52	Sumukha, B.N.	21, 26
Shukla, Nikhil	40	Sun, Changyin	48
Shukla, Rohit	45	Sun, Chengjie	41
Siddiqui, Sana	22, 30	Sun, Yanfeng	16
Sigel, Pascal	47	Sun, Yi	47
Sigmund, Dick	17, 26	Sun, Yong	22
Silla Jr., Carlos N.	46	Sundaram, Suresh	35, 37, 51
Sillitti, Alberto	16	Sung, Chul	18, 20, 42
Silva, Eunelson	14	Surampudi, Bapi Raju	9, 41, 51
Silva, Oscar	47	Suykens, Johan A.K.	11, 19
Silver, Daniel L.	46	Suzuki, Hideyuki	20
Simin, Zhang	44	Swanson, Jeremy	19
Simone, Paolo	18		
Singh, Avinash Kumar	36	T	
Singh, Dinesh	37	T. Moody, Adam	42, 45
Singh, Maneet	18, 44	Taha, Tarek	24, 41
Singh, Monit Shah	33	Taille, Bruno	20
Singh, Nidhi	23	Takahashi, Tetsuya	49
Singh, Richa	18, 35, 44	Takatsuka, Masahiro	33
Sinha, Kaushik	24, 36, 39	Tamaki, Toru	49
Skillicorn, David	12	Tambouratzis, Tatiana	46
Slack, Daniel	48	Tamukoh, Hakaru	20
Slim, Ahmad	40	Tan, Hong Hui	26
Slimane, Fouad	34	Tan, Hongye	38
Smith, Michael	31	Tan, Ying	22
Sobhan Babu, Ch.	37	Tang, Bo	34
Soh, Yeng Chai	22	Tang, Deyan	10
Sokolovska, Nataliya	19, 50	Tang, Jie	28
Sona, Diego	51	Tang, Xianchao	13
Song, Jinliang	19	Tang, Yufei	21, 22
Song, Yan	18	Tani, Jun	15
Sossa, Humberto	16	Tanscheit, Ricardo	22
Sotelo, Jose	10	Tao, Haicheng	51
Soures, Nicholas	31	Tapson, Jonathan	36
Sousa, Miguel Angelo de Abreu	45	Tavanaei, Amirhossein	27
Souto Maior Neto, Luis Alberto	51	Tavara, Edwin	11
Souza, Bruno	19	Teixeira, Thomas	49
Souza, Erico N de	46	Teodoro, Felipe Gustavo Silva	35, 38
Souza, Gustavo	26	Terwilliger, Adam	30
Sperduti, Alessandro	10, 29, 45	Teuliere, Celine	16
Squartini, Stefano	23, 39	Thom, Lucineia H.	38
Srinivasan, Gopalakrishnan	26, 33	Thomas, Kopinski	21
Srivastava, Brij Mohan Lal	29	Thurnhofer-Hemsi, Karl	13
Stanley, Kenneth	14	Tian, Chuan	29

Tian, Feng	13	Verzi, Stephen	27
Tilak, Neha	15	Vesperini, Fabio	39
Tino, Peter	11, 29, 42	Vidyaratne, Lasitha	39
Tiwari, Ashutosh	44	Viegas, Evelyne	42
Tjandra, Andros	50	Vigneshwaran, Subbaraju	51
Toguri, James	36	Vijay, Raghavan	19
Tokic, Michel	47	Villmann, Thomas	25
Tomas, Yuri	46, 47	Vineyard, Craig	14, 27, 31
Topalov, Orlin	34	Virtanen, Tuomas	23
Torikai, Hiroyuki	50	Vishnu, C.	37
Tran, Dat	9, 37, 49	Vladymyrov, Max	44
Trappenberg, Thomas	33, 36	Vogel, Eric	51
Trefzer, Martin	29	Vogginger, Bernhard	29
Triesch, Jochen	16, 47	Vogt, Thorsten	38
Tripathi, Aditay	17	Vugrin, Eric	27
Tripp, Bryan	41	Vuppala, Anil Kumar	29
Trovo', Francesco	18	Vydana, Hari Krishna	29
Tsaneva-Atanasova, Krasimira	42		
Tsapeli, Fani	11	W	
Tsuji, Hiroyuki	25	Wada, Yuji	49
Tuba, Eva	51	Wadhwa, Raoul	21
Tuba, Milan	51	Wagner, Petra	9
Tucci, Valter	51	Wallscheid, Oliver	38
Tuma, Tomas	25	Wan, Zhiqiang	46
Tupakula, Uday	44	Wang, Baoxun	41
Twining, Carole	12	Wang, Can	20
Tyagi, Kanishka	26	Wang, Chang-Dong	37, 38
		Wang, Dongjing	14
U		Wang, Dongsheng	10
Udluft, Steffen	47	Wang, Fei	14
Ueyoshi, Kodai	32	Wang, Guangjun	11
Umer, Mohammad	25	Wang, Guanjin	12
Uncini, Aurelio	40	Wang, Haishuai	13
Urda, Daniel	24	Wang, Haixia	10
		Wang, Jing	13
V		Wang, Lan	23
Valdes, Julio J.	27, 37	Wang, Lei	20
Valenti, Michele	23	Wang, Linnan	9
van Erven, Gustavo	9	Wang, Lipo	14
Van Essen, Brian	42, 45	Wang, Liqiang	15
van Gerven, Marcel A. J.	42	Wang, Liwei	18, 20
Van Hulle, Marc	49	Wang, Li	13
van Lier, Rob	42	Wang, Peiqi	10
van Schaik, Andre	36	Wang, Qi	35
Vana, Petr	49	Wang, Shihua	22
Vanika, Singhal	34	Wang, Shiyao	31
Varadharajan, Vijay	44	Wang, Shu	24
Vardy, Andrew	24	Wang, Weisong	24
Varejao, Flavio Miguel	39, 48	Wang, Wei	24, 29
Varghese, Ashley	24	Wang, Wenwu	40
Vasilaki, Eleni	47	Wang, Xiaofeng	13
Vassiljeva, Kristina	46	Wang, Xiaolong	41
Vatsa, Mayank	18, 35, 44	Wang, Xiaoyu	48
Velasco, Marley	11, 22, 36, 37	Wang, Xiao	13
Velasco, Pedro	36	Wang, Xiuying	19
Venayagamoorthy, Ganesh K.	39, 48	Wang, Yafang	15
Venayagamoorthy, Ganesh	39	Wang, Yanzhi	20, 27
Venturini, Bruno	38	Wang, Yaqing	43
Verma, Brijesh	26	Wang, Yu-Kai	36
Verzi, Greta	34	Wang, Zengmao	22

Wang, Zhangyang	18	Xu, Jin	34
Wang, Zheng	22, 48	Xu, Jungang	35
Wang, Zhigang	38	Xu, Lingyu	51
Wang, Zhiguang	23	Xu, Ningyi	32
Waslander, Steven	30	Xu, Rui	28
Watson, Thomas	16	Xu, Shuan	33
Watson, Tim	44	Xu, Yong	40
Watta, Paul	25	Xu, Yunwen	28
Weber, Daniel	38	Xu, Zenglin	9, 14, 15, 28, 41
Webster, George	44	Xu, Zhen	41
Wehrmann, Jonatas	15, 31		
Wei, Baogang	22	Y	
Wei, Hui	36	Yadav, Ajay	30
Wei, Ran	44	Yadav, Daksha	44
Wei, Wu	17	Yahata, So	25
Wei, Xiaokai	14	Yakopcic, Chris	24, 41
Wei, Xiao	23	Yamaguchi, Kanta	25
Wei, Yawei	48	Yamaguchi, Masatoshi	20
Weihua, Ou	23	Yamakawa, Hiroshi	22
Wen, Junhao	14	Yamamoto, Hideaki	19
Weng, Juyang	24	Yamamoto, Toru	21
Wermter, Stefan	9, 13, 15	Yamanishi, Teruya	49
Wijesinghe, Lakshitha	47	Yan, Hongfei	22
Wijesinghe, Parami	32	Yan, Jinghao	30
Williamson, Ashley	39	Yan, WeiZhong	23, 28
Wood, Frank	41	Yan, Wei	18
Woodford, Brendon	45	Yang, Gang	34
Wozniak, Michal	28	Yang, Hui	34
Wozniak, Stanislaw	43	Yang, Jun	22
Wrede, Britta	9	Yang, Li	13
Wu, Chengkun	36	Yang, Qichuan	18
Wu, Di	35	Yang, Tao	46
Wu, Gangshan	28, 31	Yang, Wankou	48
Wu, Jia	24	Yang, Wenjuan	10
Wu, King Keung	31	Yang, Yongliang	21
Wu, Qiang	19	Yang, Zhen	33, 41
Wu, Xiang	24	Yao, Dezhong	28
Wu, Xinyu	41	Yao, Liang	22
Wu, Yan	46	Yao, Quanming	43
Wunsch, Donald	21, 35	Yavuz, Esin	47
		Ye, Chen	46
X		Ye, Deheng	31
Xavier-Junior, Joao Carlos	45	Ye, Jinmian	9
Xiangnan, Zhong	35	Yeasin, Mohammed	20, 34, 36
Xiao, Huang	17	Yen, Shi-Jim	34
Xiaoya, Ren	23	Yeung, Henry Wing Fung	27
Xie, Tao	39	Yi, Yang	40
Xie, XiaoLiang	13	Yin, Baocai	16
Xie, Ying	12	Yin, Jianping	36
Xing, Frank Z.	38	Yin, Junfu	27
Xing, Yang	23	Yin, Jun	22
Xing, Zhenchang	31	Yin, Qian	47
Xinyi, Zhang	23	Yin, Yixin	21
Xiong, Qingyu	14	Yin, Yonghua	23
Xiong, Zhang	21, 29	Yingjiao, Bi	23
Xu, Bo	33, 41	Yingjie, Tian	12
Xu, Feng	33	Yiyang, Yao	44
Xu, Guandong	14, 16	Yoshida, Takeshi	25
Xu, Haotian	51	Yoshimoto, Takuya	50
Xu, Hua	38	Yoshioka, Mototaka	38

Yoshitsugu, Kakemoto	52	Zhen, Liu	27
You, Jane	11	Zheng, Nanning	35
Young, Steven	30	Zheng, Xin	47
Yousefi-Azar, Mahmood	27, 44	Zhihua, Zhu	44
Yu, Celina Ping	13	Zhong, Chunni	39
Yu, He	39	Zhong, Junpei	42
Yu, Hongchuan	13	Zhou, Bo	33, 43
Yu, Kai	37	Zhou, Hua	20
Yu, Niange	32	Zhou, Hucheng	32
Yu, Philip S.	14, 41	Zhou, Jianlong	19
Yu, Seunghak	39	Zhou, Siwang	10
Yu, Xiao-Hua	11	Zhou, Yuan	37
Yuan, Changan	11	Zhou, Yuqian	28
Yuan, Chunfeng	31	Zhou, Zili	16
Yuan, Shijin	30	Zhu, Dali	25
Yuan, Xin	43	Zhu, Donghua	13
Yuan, Zihao	20	Zhu, Fujin	13
Yue, Kun	20	Zhu, Lin	11, 21
Yue, Shigang	17	Zhu, Wenhao	16
Yufei, Han	44	Zhu, Xingquan	51
Z		Zielinski, Oliver	50
Zaied, Mourad	17	Zinkhan, Dirk	16
Zamora, Erik	16	Zinkov, Robert	41
Zanotto, Matteo	51	Zio, Enrico	23
Zarras, Apostolis	44	Zliobaite, Indre	26
Zha, Hongbin	13	Zolna, Konrad	32
Zhai, Deqing	22	Zou, Xiaomei	38
Zhang, Bob	18	Zucker, Jean-Daniel	19, 50
Zhang, Bo	18, 20, 42	Zuo, Qian	38
Zhang, Guangquan	12, 13	Zychowski, Adam	14
Zhang, Harry	11		
Zhang, Jian	26		
Zhang, Jiayi	21		
Zhang, Lefei	22		
Zhang, Lei	18		
Zhang, Li	18		
Zhang, Mengjie	26, 45		
Zhang, Mingli	47		
Zhang, Qichao	25		
Zhang, Rui	34		
Zhang, Wen-Ran	20		
Zhang, Wu	16		
Zhang, Xiang	15, 29		
Zhang, Xiao Wei	33		
Zhang, Yang	18		
Zhang, Yanning	30		
Zhang, Yan	22		
Zhang, Yinyan	17		
Zhang, Zhiwen	19		
Zhang, Zixing	23		
Zhao, Chenyuan	40		
Zhao, Dongbin	25		
Zhao, Junhui	30		
Zhao, Junqiao	46		
Zhao, Liang	32		
Zhao, Peng	28		
Zhao, Tong	42		
Zhao, Yawei	36		
Zhe, Shandian	41		