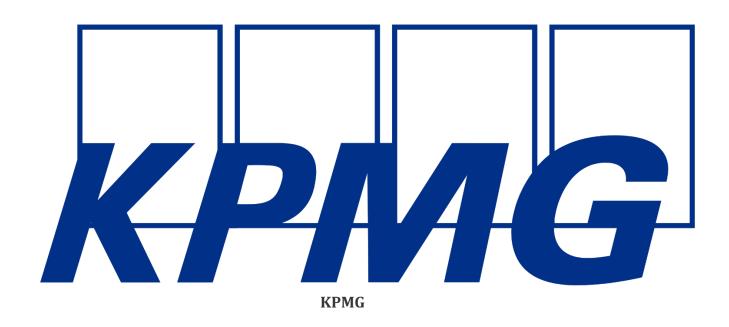# IEEE BigData 2022 Program Schedule

Osaka, Japan
Conference time zone: Japanese Standard Time (JST)

The emails with the login information to access the BigData 2022 virtual platform were sent out to all the registered participants on Dec 10, 2022. Pls check your spam folder if you didn't receive the email. If you need the email login information to access the virtual platform pls email bigdata2022@ , don't forget to attach the registration receipt if you ask for the login information. For any questions about the BigData 2022 virtual platform, please email bigdata2022@

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IEEE Big Data 2022 Program Schedule

Osaka, Japan
December 17 - December 20, 2022

Keynote Lecture: **60 minutes** (about 45 minutes for talk and 15 minutes for Q and A)
Main conference regular paper: **25 minutes** (about 20 minutes for talk and 5 minutes for Q and A)
Main conference short paper: **15 minutes** (about 11 minutes for talk and 4 minutes for Q and A)

All conference activities take place virtually and are based on USA Eastern Standard time.

	Day 1: Saturday, December 17, 2022	
Time	**Workshops, Special Sessions, Tutorials, Big Data Cup Challenges**	**Workshop Chair**
8:00-19:00	8th Special Session on Intelligent Data Mining – ONLINE	Uraz Yavanoglu urazyavanoglu@gmail.com; uraz@gazi.edu.tr;
10:30-12:30	Tutorial 1: High Performance BigData Processing with Dask and Spark using MPI - ONLINE	Dhabaleswar K. (DK) Panda panda@cse.ohio-state.edu Aamir Shafi shafi.16@osu.edu
10:30 – 12:30	IEEE BigData Cup: Trip Destination Prediction Challenge 2022 - HYBRID	Yanbo Pang pybdtc@iis.u-tokyo.ac.jp, Yoshihide Sekimoto sekimoto@csis.u-tokyo.ac.jp, Takehiro Kashiyama t.kashiyama@osaka-ue.ac.jp
	Workshop: 7th Workshop on Real-time Stream Analytics, Stream Mining, CER/CEP & Stream Data Management in Big Data	Sabri Skhiri, sabri.skhiri@euranova.eu
	3rd International Workshop on User Understanding from Big Data	Claire Ding, qiding.purdue@gmail.com
	The 6th International Workshop on Big Data Analytic for Cybercrime Investigation and Prevention	Andrii Shalaginov, andrii.shalaginov@kristiania.no
8;30-12:30	Workshop on Big Data Analytic in Healthcare)--ONLINE	Alex Kuo, akuo@uvic.ca
	The 6th Workshop on Graph Techniques for Adversarial Activity Analytics (GTA3 2022)--ONLINE	Jiejun Xu, jxu@hrl.com
	The 4th International Workshop on Big Data Tools, Methods, and Use Cases for Innovative Scientific Discovery (BTSD) --ONLINE	Sangkeun Lee, lees4@ornl.gov
	The 6th IEEE International Workshop on Big Data for Financial News and Data)--ONLINE	Quanzhi Li, quanzhi.li@gmail.com
	Second Workshop on Knowledge Graphs and Big Data)--ONLINE	Yuan An, ya45@drexel.edu
	6th Workshop on Human-in-the-loop Methods and Future of Work in BigData)--ONLINE	Atsuyuki Morishima, morishima-office@ml.cc.tsukuba.ac.jp
	IEEE BigData 2022 Workshop on Knowledge Discovery and Data Mining in IT Operations (BigData-IT))--ONLINE	Yu, Deng, dengy@us.ibm.com

	The 7th IEEE International Workshop on Big Spatial Data (BSD 2022)--ONLINE	Ashwin Shashidharan, ashashidharan@esri.com, FARNOUSH.BANAEI-KASHANI@ucdenver.edu, hendawi@uri.edu, cyzhang@microsoft.com
	1st International Workshop on Responsible AI and Data Ethics (RAIDE 2022)--ONLINE	Ying Xie, yxie2@kennesaw.edu
14:00-16:00	Tutorial 2: Explainable AI: Bridging the AI decisions and human trust – ONLINE	Sonali Agarwal sonali@iiita.ac.in Sanjay Kumar Sonbhadra sanjaykumarsonbhadra@soa.ac.in Narinder Singh Punn pse2017002@iiita.ac.in
14:00 – 18:30	IEEE BigData Cup: Vehicle class and Orientation Detection Challenge 2022 – HYBRID	Ashutosh Kumar ashutosh@iis.u-tokyo.ac.jp, Hiroya Maeda maedahi@iis.u-tokyo.ac.jp, Hiroshi Omata homata@iis.u-tokyo.ac.jp, Takehiro Kashiyama t.kashiyama@osaka-ue.ac.jp, Yoshihide Sekimoto sekimoto@csis.u-tokyo.ac.jp
14:00 – 18:30	5th Special Session on HealthCare Data in IEEE Big Data 2022 - ONLINE	Özgün PINARER opinarer@gsu.edu.tr SULTAN N. TURHAN <sturhan@gsu.edu.tr>
16:00 – 19:00	8th Special Session on Information Granulation in Data Science and Scalable Computing - ONLINE	Shusaku Tsumoto tsumoto@med.shimane-u.ac.jp Dominik Slezak slezak@mimuw.edu.pl Tzung-Pei Hong tphong@nuk.edu.tw Leon S. L. Wang slwang@nuk.edu.tw Weiping Ding dwp9988@hotmail.com
14:00-18:30	Workshop: Big Data Analytics for Humanitarian Crises	Thilanka Munasinghe, munast@rpi.edu
	The 6th International Workshop on Big Data Analytic for Cybercrime Investigation and Prevention	Andrii Shalaginov, andrii.shalaginov@kristiania.no
14:00-18:30	5th Workshop on Big Data for CyberSecurity (BigCyber-2022) --ONLINE	Sudip Mittal, mittal@cse.msstate.edu
	The 6th Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD) --ONLINE	Zhiyuan Chen, zhchen@umbc.edu
	The Fifth Workshop on Big Data for Economic and Business Forecasting--ONLINE	Wei Shang, shangwei@amss.ac.cn
	The 5th International Workshop on Big Media Dataset Construction, Management and Applications--ONLINE	Cheng Jin, jc@fudan.edu.cn

Day 2: Sunday, December 18, 2022		
9:15 - 10: 15 am	**Keynote Speech 1:** Prof. Renee Miller, University Northeastern University, A Vision for Data Alignment and Integration in Data Lakes Dec 18: 9:15 in JST	
10: 15-10:30 am	**Coffee Break**	
10:15-10:30	**Poster Setup**	
Time	**Sessions/Workshops**	**Session chair**
10:30 – 12:30	S1: Deep learning for Big Data (1)	Ordonez, Carlos,carlos@central.uh.edu
	S2: Mining Data from Dynamic Real Society	Yanbo Pang, ybdtc@iis.u-tokyo.ac.jp
	S3: Methods for Search and Mining from Big Data (1)	Hiroyuki Kitagawa, kitagawa@cs.tsukuba.ac.jp
	S4: Novel Theoretical Models for Big Data (1)	Weimao Ke, weimao.ke@gmail.com
	S5: Cloud/Grid/Stream Computing for Big Data	Pranava Mummoju, pranava.mummoju@univie.ac.at
	S6: Predictive analytics on Big Data (1)	U KANG, ukang@snu.ac.kr
	I&G S1: Deep Learning 1	
	Tutorial 3: Spatial Big Data Meets AI: Applications and Perspectives - HYBRID	Zipei Fan fanzipei@iis.u-tokyo.ac.jp Wenlu Wang wenlu.wang@tamucc.edu
	IEEE Big Data Cup: Privacy-preserving Matching of Encrypted Images - HYBRID	Dominik Slezak slezak@mimuw.edu.pl, Marcin Szczuka m.szczuka@myled.pl, Andrzej Janusz andrzej.janusz@qed.pl
	IEEE BigData Cup: Crowd sensing-based Road Damage Detection Challenge - HYBRID	Deeksha Arya deeksha.arya1211@gmail.com, Takehiro Kashiyama t.kashiyama@osaka-ue.ac.jp
8:30-12:30	Ninth International Workshop on High Performance Big Graph Data Management, Analysis, and Mining (BigGraphs 2022)	Kames h Madduri, madduri@psu.edu
8:30-12:30	The 2nd International Workshop on Multi-Modal Medical Data Analysis --ONLINE	Bo Zhang, zbo@bupt.edu.cn
	Fifth International Workshop on the Internet of Things Data Analytics (IoTDA) --ONLINE	Eyhab Al-Masri, ealmasriu@gmail.com
	(Deep) Neural Networks for Brain Connectome Analysis (BrainNN): Theories, Methods, and Applications --ONLINE	Carl Yang, j.carlyang@emory.edu

12:30 – 14:00	**Lunch Break** Poster Display	
14:00 – 16:00	S7: Deep learning for Big Data (2)	Chong Li ch.l@huawei.com
	S8: Mining Data from Physical and Cyber Society	Yicheng Tu tuy@usf.edu
	S9: Methods for Search and Mining from Big Data (2)	Lamine Diop lamine.diop@epita.fr
	S10: Novel Theoretical Models for Big Data (2)	Naoki Watanabe naoki50@keio.jp
	S11: Systems to Support Big Data Computing (1)	Yusuke Tanimura yusuke.tanimura@aist.go.jp
	S12: Predictive analytics on Big Data (2)	John Easton j.m.easton@bham.ac.uk
	I&G S2 Deep Learning (2) + I&G S3: Graph Analysis (1) ,	
	Special Session on Platform for DFFT (Data Free Flow with Trust) – ONSITE	*Noboru Koshizuka,* noboru@koshizuka-lab.org
	Workshop: Applications of Big Data Technology in the Transport Industry	John Easton, j.m.easton@bham.ac.uk
	5th Special Session on HealthCare Data in IEEE Big Data 2022 – ONLINE	Özgün PINARER opinarer@gsu.edu.tr SULTAN N. TURHAN <sturhan@gsu.edu.tr>
	Tutorial 4: Measurement Informatics – ONLINE	Takashi Washio washio@ar.sanken.osaka-u.ac.jp
	IEEE BigData Cup: Crowd sensing-based Road Damage Detection Challenge - HYBRID	Deeksha Arya deeksha.arya1211@gmail.com, Takehiro Kashiyama t.kashiyama@osaka-ue.ac.jp
16:00-16:20	**Coffee Break** Poster Display	
16:20 – 18:20	S13: Deep learning for Big Data (3)	Rao, Aniruddha Rajendra Aniruddha.Rao@hal.hitachi.com
	S14: Link and Graph Mining	Yasufumi Takama ytakama@tmu.ac.jp
	S15: Complex Big Data Applications (1)	Akinori Abe ave@chiba-u.jp
	S16: Computational Models in Big Data	John Paisley jpaisley@columbia.edu
	S17: Systems to Support Big Data Computing (2)	Toshiyuki AMAGASA amagasa@cs.tsukuba.ac.jp
	S18: Machine learning algorithms for Big Data (1)	Dirk Van den Poel dirk.vandenpoel@ugent.be
	I&G S4: Graph Analysis (2) + I&G S5: Clustering	
	8th Special Session on Information Granulation in Data Science and Scalable Computing	Shusaku Tsumoto tsumoto@med.shimane-u.ac.jp Dominik Slezak slezak@mimuw.edu.pl Tzung-Pei Hong tphong@nuk.edu.tw Leon S. L. Wang slwang@nuk.edu.tw Weiping Ding dwp9988@hotmail.com

ONLINE Workshop 14:00-18:30	Workshop: Applications of Big Data Technology in the Transport Industry	John Easton, j.m.easton@bham.ac.uk
	5th Special Session on HealthCare Data in IEEE Big Data 2022 – ONLINE	Özgün PINARER opinarer@gsu.edu.tr SULTAN N. TURHAN <sturhan@gsu.edu.tr>
	IEEE BigData Cup: Crowd sensing-based Road Damage Detection Challenge - HYBRID	Deeksha Arya deeksha.arya1211@gmail.com, Takehiro Kashiyama, t.kashiyama@osaka-ue.ac.jp
	8th International Workshop on Methods to Improve Big Data Science Projects (MIDP-2022) --ONINE	Jeffrey Saltz, jsaltz@syr.edu
	Workshop: Scalable Cloud Data Management--ONLINE	Benjamin Wollmer, benjamin.wollmer@uni-hamburg.de
	The 3rd International Workshop on Big Data Reduction (IWBDR-3) --ONLINE	Dingwen Tao, dingwen.tao@wsu.edu
	6th International Workshop on Big Data Analytics for Cyber Intelligence and Defense (BDA4CID 2022)--ONLINE	Stephen McGough, stephen.mcgough@newcastle.ac.uk
	1st International Workshop on Big Data Analytics for Health and Medicine (BDA4HM 2022) --ONLINE	Stephen McGough, stephen.mcgough@newcastle.ac.uk
	2nd International Workshop on Big Data Analytics for Sustainability (BDA4S 2022) --ONLINE	Stephen McGough, stephen.mcgough@newcastle.ac.uk
	Creating Big Data for morals, ethics, and values in natural language in an automatically inferrable format --ONLINE	Keisuke Nakamura, keisuke@marusei-sk.com

Day 3: Monday, December 19, 2022		
9:00 – 10: 00 am	**Keynote Speech 2:** Prof. Hiroaki Kitano, Okinawa Institute of Science and Technology (OIST) COVID-19 AI & Simulation Project: Overview and Lessons Learned Dec 19: I 9:00 in JST	
10: 00-10:30 am	**Coffee Break** Poster Display	
Time	**Sessions/Workshops**	**Session chair**
10:30 – 12:30	S19: Complex Big Data Applications (2)	Kaira Sekiguchi kaira@sys.t.u-tokyo.ac.jp
	S20: Deep learning for Big Data (3)	Takafumi Koshinaka <koshinak@yokohama-cu.ac.jp>
	S21: Machine learning algorithms for Big Data (2)	Akinori Abe ave@chiba-u.jp
	S22: Data Acquisition, Pre-processing, and Integration (1)	Lalana Kagal lkagal@csail.mit.edu
	S23: Big Data in Real Life Applications (1)	FARAH AL.SHANIK falshan@g.clemson.edu

	S24: Data Market and Trust	Masatoshi Yoshikawa yoshikawa@i.kyoto-u.ac.jp
	I&G S6: Big Data Systems (1)	
	I&G S7: Legal applications + I&G S8: Covid-19 Analysis	
	Special Session on Data-Driven Designation and Implementation of Automated Guided Vehicles	Jerry Chun-Wei Lin jerrylin@ieee.org Rafal Cupek Dariusz Mrozek Gautam Srivastava
	Special session on Machine Leaning on Big Data	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Special session on Privacy and Security of Big Data	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Tutorial 5: Learning with Time Series Data: Algorithms, Explainability, and Applicatio–s - ONLINE	Jun Huan lukehuan@amazon.com Yuyang Wang yuyawang@amazon.com Youngsuk Park pyoungsu@amazon.com Karthick Gopalswamy kgopalsw@amazon.com Gaurav Gupta gauravaz@amazon.com Panpan Xu xupanpan@amazon.com
8:30-12:30	Computational Archival Science: digital records in the age of big data--ONLINE	Mark Hedges, mark.hedges@kcl.ac.uk
8:30-12:30	10th International Workshop on Distributed Storage and Blockchain Technologies for Big Data--ONLINE	Han Wang, wanghan2017@pku.edu.cn
8:30-12:30	7th Workshop on Advances in High Dimensional (AdHD) Big Data	Aristidis Vrahatis aris.vrahatis@gmail.com
aris.vrahatis@gmail.com 8:30-12:30	Second International Workshop on Data science for equality, inclusion and well-being challenges (DS4EIW 2022)	Tania Cerquitelli, tania.cerquitelli@polito.it
12:30 – 14:00	**Lunch Break** Poster Display	
14:00 – 16:00	S25: Complex Big Data Applications (3)	Wenbin Gan wenbingan@nict.go.jp
	S26: Deep learning for Big Data (4)	Takafumi Koshinaka <koshinak@yokohama-cu.ac.jp>
	S27: Machine learning algorithms for Big Data (3)	Renhe Jiang jiangrh@csis.u-tokyo.ac.jp
	S28: Data Acquisition, Pre-processing, and Integration (2)	Hassan Eldeeb ha.eldeeb@gmail.com
	S29: Visualization Analytics for Big Data	Sangbong Yoo usangbong@gmail.com
	S30: Trust, resilience, privacy, and security issues	Yang Cao yang@ist.hokudai.ac.jp
	I&G S9: Advertisement and Recommendation + I&G S10: Big Data Analysis (1)	

	Special session on Machine Leaning on Big Data	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Special session on Privacy and Security of Big Data	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Tutorial 6: Utility of Clustering algorithms in Social Media Analys–s - ONLINE	Takeaki Uno uno@nii.jp
	5th Special Session on HealthCare Data in IEEE Big Data 2022 – ONLINE	Özgün PINARER opinarer@gsu.edu.tr SULTAN N. TURHAN <sturhan@gsu.edu.tr>
	Special Session on Data-Driven Designation and Implementation of Automated Guided Vehicles	Jerry Chun-Wei Lin jerrylin@ieee.org Rafal Cupek Dariusz Mrozek Gautam Srivastava
14:00-18:00	IEEE Big Data Cup: GAN-Based Training for Binary Classifier - ONLINE	Hussam Al Hamadi hussam.alhamadi@ku.ac.ae, Ernesto Damiani Ernesto.damiani@ku.ac.ae, Martina Morcos martina.morcos@ku.ac.ae,, Sivaprasad Nandyala siva@ssrc.tii.ae, Brian McGillion brian@ssrc.tii.ae
	Workshop: New Strands of Usage of Big Data in Medical Systems, Market and Institutional Design, and Economic Theory	Naoki Watanabe, naoki50@keio.jp
	Workshop on Cyber Threat Intelligence and Hunting (CyberHunt 2022)	Vasileios Mavroeidis, vasileim@ifi.uio.no
14:00-18:00	Computational Archival Science: digital records in the age of big data--ONLINE	Mark Hedges, mark.hedges@kcl.ac.uk
14:00-18:00	10th International Workshop on Distributed Storage and Blockchain Technologies for Big Data--ONLINE	Han Wang, wanghan2017@pku.edu.cn
14:00-18:00	Big Data Engineering and Analytics in Cyber-Physical Systems" (BigEACPS'22) --ONLINE	Akbar Namin, akbar.namin@ttu.edu
14:00-18:00	Big Food, Nutrition and Environment Data Management and Analysis--ONLINE	Barbara Koroušić Seljak, barbara.korousic@ijs.si
16: 00-16:30	**Coffee Break** Poster Display	
16:30-18:50	Special session on Machine Leaning on Big Data - ONLINE	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Special session on Privacy and Security of Big Data -- ONLINE	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
16:30-18:50	Computational Archival Science: digital records in the age of big data--ONLINE	Mark Hedges, mark.hedges@kcl.ac.uk

16:30-18:50	10th International Workshop on Distributed Storage and Blockchain Technologies for Big Data--ONLINE	Han Wang, wanghan2017@pku.edu.cn
17:00 - 18: 00	**Keynote Speech 3:** Prof. Meihui Zhang Beijing Institute of Technology, China Big Data Management and Analytics for Supporting Smart Healthcare Applications Dec 19: 17:00 in JST (AM 8:00 by GST)	

Day 4: Tuesday, December 20, 2022		
9:00 - 10: 00 am	**Keynote Speech 4:** Prof. Tamer Özsu A SYSTEMATIC VIEW OF DATA SCIENCE University of Waterloo (2018) Dec 20: 9:00 in JST	
10 - 10: 30 am	**Coffee Break** Poster Display	

Time	Sessions/Workshops	Session chair
10:30 – 12:30	S31: Trust, resilience, privacy, and security issues	Min-Te Sun msun@csie.ncu.edu.tw
	S32: Social Web Search and Mining	Lamine Diop lamine.diop@epita.fr
	S33: Big Data in Real Life Applications (2)	John Easton j.m.easton@bham.ac.uk
	S34: Large-scale Recommendation Systems and Social Media Systems	Daichi AMAGATA amagata.daichi@ist.osaka-u.ac.jp
	S35: Big Data Analytics in Government, Public Sector and Society in General	Roten, Daniel d1roten@sdsc.edu
	S36: Deep learning for Big Data (5)	Jaewoo Lee JAEWOO.LEE@uga.edu
	S37: Learning Essential Features in Big Data	Rao, Aniruddha Rajendra Aniruddha.Rao@hal.hitachi.com
	I&G S11: Big Data Analysis (2)	
8:830-12:30	I&G S12: Big Data Systems (2) + I&G S13: Big Data Applications (1) + I&G S14: Big Data Analysis (3)	
	Special session on Machine Leaning on Big Data	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Special session on Privacy and Security of Big Data --ONLINE	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Workshop: Digital twins for accelerated discovery of climate and sustainability solutions	Levente Klein, kleinl@us.ibm.com
	Workshop: The Sixth Annual Workshop on Applications of Artificial Intelligence in the Legal Industry	Han Qin, han.qin@ankura.com

12:30 – 14:00	**Lunch Break** Poster Display	
14:00 – 16;00	S38: Data Ecosystem and Its Evaluation (1)	Kawsar Haghshenas kawsar.haghshenas@iaas.uni-stuttgart.de
	S39: Social Web Search and Mining	Hiroki Sakaji sakaji@sys.t.u-tokyo.ac.jp
	S40: Big Data in Real Life Applications (3)	Peter Baumann baumann@rasdaman.com
	S41: Large-scale Recommendation Systems and Social Media Systems	Katsutoshi Yada yada@kansai-u.ac.jp
	S42: Big Data Analytics for Value Creation in the Real Life	Bessho Masahiro bessho@iniad.org
	S43: Deep learning for Big Data (6)	Poonam Goyal drpoonamgoyal@gmail.com
	I&G S15: Big Data Applications (2)	
	Tutorial 7: Learning from Non-IID Data: Centralized vs. Federated Learning - HYBRID	Jun Wu junwu3@illinois.edu Wenxuan Bao wbao4@illinois.edu Jingrui He jingrui@illinois.edu
16:00 - 16: 20	**Coffee Break**	
16:20-18:00	S44: Link and Graph Mining	Shen Wang <wssddtc@gmail.com>
	S45: Computational Models and Information Quality	Ordonez, Carlos sabri.skhiri@euranova.eu
	I&G S16: Big Data Analysis (4)	
	Special session on Machine Leaning on Big Data - ONLINE	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
	Special session on Privacy and Security of Big Data --ONLINE	Alfredo Cuzzocrea alfredo.cuzzocrea@unical.it
18:00-18:30pm	Closing	

Main Conference Paper Sessions

S1: Deep learning for Big Data (1)	
BigD254 "FEZ: a Flexible and Efficient Zoom-in Method for Ultra-large Image Classification" (Regular)	Cheng-Han Lu and Shih-Hao Hung
BigD286 "Improving Representation Learning for Session-based Recommendation" (Regular)	Tianwen Chen and Raymond Chi-Wing Wong
BigD246 "FedLesScan: Mitigating Stragglers in Serverless Federated Learning" (Short)	Mohamed Elzohairy, Mohak Chadha, Anshul Jindal, Andreas Grafberger, Jianfeng Gu, Michael Gerndt, and Osama Abboud
BigD250 "Open Set Domain Adaptation by Extreme Value Theory" (Short)	Yiming Xu and Diego Klabjan
BigD308 "VWC-BERT:Scaling Vulnerability–Weakness–Exploit Mapping on Modern AI Accelerators" (Short)	Siddhartha Shankar Das, Mahantesh Halappanavar, Antonino Tumeo, Edoardo Serra, Alex Pothen, and Ehab Al-Shaer
BigD309 "Sequential Anomaly Detection with Local and Global Explanations" (Short)	He Cheng, Depeng Xu, and Shuhan Yuan
S2: Mining Data from Dynamic Real Society	
BigD614 "Clustering Human Mobility with Multiple Spaces" (Regular)	Haoji Hu, Haowen Lin, and Yao-Yi Chiang
BigD563 "Proximal Cost-sensitive Sparse Group Online Learning" (Regular)	Zhong Chen, Huixin Zhan, Victor Sheng, Andrea Edwards, and Kun Zhang
BigD413 "On Inferring User Socioeconomic Status with Mobility Records" (Regular)	Zheng Wang, Mingrui Liu, Cheng Long, Qianru Zhang, Jiangneng Li, and Chunyan Miao
BigD831 "Spatial Attention Based Grid Representation Learning For Predicting Origin–Destination Flow" (Regular)	Mingfei Cai, Yanbo Pang, and Yoshihide Sekimoto
BigD598 "Generation of Synthetic Urban Vehicle Trajectories" (Short)	Chrysovalantis Anastasiou, Seon Ho Kim, and Cyrus Shahabi
S3: Methos for Search and Mining from Big Data (1)	
BigD366 "LASSO Logic Engine: harnessing the logic parsing capabilities of the LASSO algorithm for longitudinal feature learning" (Regular)	Jason Orender, Mohammad Zubair, and Jiangwen Sun
BigD633 "VIMTS: Variational-based Imputation for Multi-modal Time Series" (Regular)	Xiaohu Zhao, Kebin Jia, Benjamin Letcher, Jennifer Fair, Yiqun Xie, and Xiaowei Jia
BigD262 "Multi-Query Optimization Revisited: A Full-Query Algebraic Method" (Regular)	Mehrad Eslami, Yicheng Tu, Zichen Xu, and Hadi Charkhgard
BigD472 "A New IoT Storage System Based on Raw NVM" (Short)	Tao Cai, Yueming Ma, Dejiao Niu, Pengfei Gao, Tianle Lei, and Jianfei Dai
BigD650 "An FPGA-based Accelerator for Regular Path Queries over Edge-labeled Graphs" (Short)	Kento Miura, Ryohei Kobayashi, Toshiyuki Amagasa, Hiroyuki Kitagawa, Norihisa Fujita, and Taisuke Boku
BigD651 "Verification of Sparsity in the Attention Mechanism of Transformer for Anomaly Detection in Multivariate Time Series" (Short)	Chihiro Maru, Boris Brandherm, and Ichiro Kobayashi

S4: Novel Theoretical Models for Big Data (1)	
BigD310 "Trie-based Output Space Itemset Sampling" (Regular)	Lamine Diop, Cheikh Talibouya Diop, Arnaud Giacometti, and Arnaud Soulet
BigD550 "Alternatives to Classic BM25-IDF based on a New Information-theoretical Framework" (Regular)	Weimao Ke
BigD240 "Adaptive and Dynamic Multi-Resolution Hashing for Pairwise Summations" (Short)	Lianke Qin, Aravind Reddy, Zhao Song, Zhaozhuo Xu, and Danyang Zhuo
BigD442 "A Novel GPU-Accelerated Algorithm to Discover Periodic-Frequent Patterns in Temporal Databases" (Short)	Uday Kiran Rage, Tarun Sreepada, Yutaka Watanobe, and Kazuo Goda
BigD647 "FVec2vec: A Fast Nonlinear Dimensionality Reduction Approach for General Data"	Xiaoli Ren, Kefeng Deng, Kaijun Ren, Junqiang Song, Xiaoyong Li, and Qing Xu

S5: Cloud/Grid/Stream Computing for Big Data	
BigD743 "Ruya: Memory-Aware Iterative Optimization of Cluster Configurations for Big Data Processing" (Regular)	Jonathan Will, Lauritz Thamsen, Jonathan Bader, Dominik Scheinert, and Odej Kao
BigD411 "Multi-Cloud Query Optimisation with Accurate and Efficient Quoting" (Short)	Damien T. Wojtowicz, Shaoyi Yin, Jorge Martinez-Gil, Franck Morvan, and Abdelkader Hameurlain
BigD450 "PROFET: Profiling-based CNN Training Latency Prophet for GPU Cloud Instances" (Short)	Sungjae Lee, Yoonseo Hur, Subin Park, and Kyungyong Lee
BigD497 "Latency vs Cost : Data Ingestion options at Twitter Scale" (Short)	Zhenzhao Wang, Santosh Marella, Mak Inada, Pablo Rodriguez Defino, Abhishek Jagannath, and Lohit VijayaRenu
BigD710 "Enhancing k-Means Algorithm with Tensor Processing Unit" (Short)	Pranava Mummoju, Anna Wolff, Martin Perdacher, Claudia Plant, and Christian Böhm
BigD816 "Optimal Rate Control for Latency-constrained High Throughput Big Data Applications" (Short)	Ziren Xiao, Aaron Harwood, and Maria Rodriguez
BigD849 "Perona: Robust Infrastructure Fingerprinting for Resource-Efficient Big Data Analytics" (Short)	Dominik Scheinert, Soeren Becker, Jonathan Bader, Lauritz Thamsen, Jonathan Will, and Odej Kao

S6: Predictive analytics on Big Data (1)	
BigD372 "Tab-HGNN: Learning Column Representation with Heterogeneous Graph Neural Network for Web Table Interpretation" (Regular)	Xingyu Su and Yanyan Shen
BigD448 "A Unified Model for Bid Landscape Forecasting in the Mixed Auction Types of Real-Time Bidding" (Regular)	Seonguk Seo, Jihye Ha, Jieun Shin, Sunah Kim, and Taeho Hwang
BigD471 "Accurate PARAFAC2 Decomposition for Temporal Irregular Tensors with Missing Values" (Regular)	Jun-Gi Jang, Jeongyoung Lee, Jiwon Park, and U Kang
BigD656 "Spatio-Temporal Based Architecture Topology Search for Multivariate Time Series Prediction" (Short)	Xinqi Lyu, Yibo Chen, Jiamin Chen, Xiangyue Liu, and Jianliang Gao
BigD498 "A Semi-Supervised Learning Approach for Abnormal Event Prediction on Large Network Operation Time-Series Data" (Regular)	Yijun Lin and Yao-Yi Chiang

S7: Deep learning for Big Data (2)	
BigD295 "Learning Dynamic Multimodal Implicit and Explicit Networks for Multiple Financial Tasks" (Regular)	Gary Ang and Ee-Peng Lim
BigD318 "Decomposed Transformer with Frequency Attention for Multivariate Time Series Anomaly Detection" (Regular)	Shuxin Qin, Jing Zhu, Dan Wang, Liang Ou, Hongxin Gui, and Gaofeng Tao
BigD339 "WaveNets: Wavelet Channel Attention Networks" (Regular)	Hadi Salman, Caleb Parks, Shi Hong, and Justin Zhan
BigD412 "Enhancing Graph Convolutional Networks by Topology Sampling" (Short)	Quentin Petit, Chong Li, Serge Petiton, Kelun Chai, and Nahid Emad

BigD425 "SHCN: Self-supervised General Hypergraph Clustering Network" (Short)	Mengran Li, Xinlin Piao, Yong Zhang, Yongli Hu, and Baocai Yin

S8: Mining Data from Physical and Cyber Society	
BigD566 "iFiG: Individually Fair Multi-view Graph Clustering" (Regular)	Yian Wang, Jian Kang, Yinglong Xia, Jiebo Luo, and Hanghang Tong
BigD649 "ABM: Attention-based Message Passing Network for Knowledge Graph Completion" (Regular)	Weikai Xu, Lihui Liu, and Hanghang Tong
BigD283 "Towards Robust Graph Neural Networks via Adversarial Contrastive Learning" (Regular)	Shen Wang, Zhengzhang Chen, Jingchao Ni, Haifeng Chen, and Philip S. Yu
BigD815 "FedGSL: Federated Graph Structure Learning for Local Subgraph Augmentation" (Short)	Geng Zhao, Yi Huang, Chihsu Tsai, and Yuxia Sun
BigD452 "QuoGNN: Quotient Graph Neural Network for Urban Flow Forecasting" (Short)	Xiaochuan Gou, Peng Han, and Xiangliang Zhang

S9: Methods for Search and Mining from Big Data (2)	
BigD617 "Predicting Deduplication Performance: An Analytical Model and Empirical Evaluation" (Regular)	Owen Randall and Paul Lu
BigD237 "Scalable and Accurate Density-Peaks Clustering on Fully Dynamic Data" (Regular)	Daichi Amagata
BigD215 "A Novel Estimate Fitness Method by Measuring A large number of Sub-event Logs Conformance" (Short)	Mimi Wang, Xudong He, and Peihai Zhao
BigD771 "From Data Warehouse to Lakehouse: A Comparative Review" (Short)	Ahmed Harby and Farhana zulkernine
BigD575 "Griddle: Effective Query Support over Voluminous Gridded Spatial Datasets" (Short)	Pierce Smith, Sangmi Pallickara, and Shrideep Pallickara

S10: Novel Theoretical Models for Big Data (2)	
BigD571 "On High-Latency Bowtie Data Streaming" (Regular)	Gabriel Stella and Dmitri Loguinov
BigD688 "Detection of Unobserved Common Cause in Discrete Data Based on the MDL Principle" (Regular)	Masatoshi Kobayashi, Kohei Miyaguchi, and Shin Matsushima
BigD755 "Improving Robustness of Vision Transformers via Data-Augmented Virtual Adversarial Training" (Short)	Weili Shi and Sheng Li

S11: Systems to Support Big Data Computing (1)	
BigD445 "ByteStore: Hybrid Layouts for Main-Memory Column Stores" (Regular)	Pengfei Zhang, ZiQiang Feng, Eric Lo, and Hailin Qin
BigD505 "Scalable Parallel Machine Learning Computing a Summarization Matrix with SQL Queries" (Regular)	Carlos Ordonez
BigD422 "Workload Prediction for Adaptive Approximate Query Processing" (Short)	Hamid Shahrivari, Odysseas Papapetrou, and George Fletcher
BigD454 "A novel self-adaptive method for improving patient monitoring with composite early-warning scores" (Short)	Antonio Iyda Paganelli, Pedro Elkind Velmovitsky, Adriano Branco, Markus Endler, Plinio Pelegrini Morita, Paulo Alencar, and Donald Cowan

S12: Predictive analytics on Big Data (2)	
BigD552 "Profiling-free Configuration Adaptation and Latency-Aware Resource Scheduling for Video Analytics" (Regular)	Tian Zhou, Fubao Wu, and Lixin Gao
BigD758 "Significant Digits: Using Large-Scale Blockchain Data to Predict Fraudulent Addresses" (Regular)	Jared Gridley and Oshani Seneviratne

BigD845 "Bundle entropy as an optimized measure of consumers' systematic product choice combinations in mass transactional data" (Regular)	Roberto Mansilla, Gavin Smith, Andrew Smith, and James Goulding
BigD787 "Fidelity and diversity metrics for validating hierarchical synthetic data: Application to residential energy demand" (Short)	Swapna Thorve, Anil Vullikanti, Henning Mortveit, Samarth Swarup, and Madhav Marathe

S13: Deep learning for Big Data (3)	
BigD415 "A Hybrid Model Based on NeuralProphet and Long Short-Term Memory for Time Series Forecasting" (Regular)	Zhaofeng Yu, Kun Niu, Xiao Chen, Zhijun Guo, and Dongsheng Li
BigD392 "Local Temporal Abstraction in Time Series Classification" (Short)	Nevo Itzhak, Shahar Tal, Hadas Cohen, Osher Daniel, Roze Kopylov, and Robert Moskovitch

S14: Link and Graph Mining (8-8)	
BigD577 "Skew-Symmetric Adjacency Matrices for Clustering Directed Graphs" (Regular)	Koby Hayashi, Sinan Aksoy, and Haesun Park
BigD628 "Self-supervised Hypergraph Representation Learning" (Regular)	Boxin Du, Changhe Yuan, Robert Barton, Tal Neiman, and Hanghang Tong
BigD687 "Dynamic Graph Summarization: Optimal and Scalable" (Regular)	Mahdi Hajiabadi, Venkatesh Srinivasan, and Alex Thomo
BigD453 "Fast Binary Network Hashing via Graph Clustering" (Short)	Yasuhiro Fujiwara, Masahiro Nakano, Atsutoshi Kumagai, Yasutoshi Ida, Akisato Kimura, and Naonori Ueda
BigD330 "DELATOR: Money Laundering Detection via Multi-Task Learning on Large Transaction Graphs" (Short)	Henrique S. Assumpção, Fabrício Souza, Leandro Lacerda Campos, Vinícius T. de Castro Pires, Paulo M. Laurentys de Almeida, and Fabricio Murai
BigD464 "Network Distance based on Laplacian Flows on Graphs" (Short)	Dianbin Bao, Kisung You, and Lizhen Lin

S15: Complex Big Data Applications (1)	
BigD233 "Revenue Maximization in Waterfall Auctions with Dynamic Programming" (Regular)	Dan Halbersberg, Matan Halevi, and Moshe Salhov
BigD243 "Conditional Graph Regression for Complex Chemical Systems with Heterogeneous Substructures" (Regular)	Gyoung S. Na
BigD328 "Progressive prediction of hospitalisation and patient disposition in the emergency department" (Regular)	Laura Uhl, Vincent AUGUSTO, Vincent Lemaire, Youenn Alexandre, Fanny Jardinaud, Paolo Bercelli, and Saber Aloui
BigD245 "POSGen: Personalized Opening Sentence Generation for Online Insurance Sales" (Short)	Yu Li, Yi Zhang, Weijia Wu, Zimu Zhou, and Qiang Li
BigD311 "ISIDE: Proactively Assist University Students at Risk of Dropout" (Short)	Enrico Bassetti, Andrea Conti, Emanuele Panizzi, and Gabriele Tolomei
BigD320 "Continuous Health Monitoring of Machinery using Online Clustering on Unlabeled Data Streams" (Short)	Minh-Huong Le-Nguyen, Fabien Turgis, Pierre-Emmanuel Fayemi, and Albert Bifet

S16: Computational Models in Big Data	
BigD390 "Aggregation Delayed Federated Learning" (Regular)	Ye Xue, Diego Klabjan, and Yuan Luo
BigD590 "Efficient first-order predictor-corrector multiple objective optimization for fair misinformation detection" (Regular)	Eric Enouen, Katja Mathesius, Sean Wang, Arielle Carr, and Sihong Xie
BigD695 "Probabilistic Orthogonal Matching Pursuit" (Regular)	Ghazal Fazelnia and John Paisley
BigD726 "Bayesian Nonparametric Model Averaging Using Scalable Gaussian Process Representations" (Regular)	John Paisley, Sebastian Rowland, Jeremiah Liu, Brent Coull, and Marianthi Kioumourtzoglou

BigD434 "Scalable Tensors for Big Data Analytics" (Short)	Leonidas Fegaras, Tanvir Ahmed Khan, Md Hasanuzzaman Noor, and Tanzima Sultana
S17: Systems to Support Big Data Computing (2)	
BigD591 "Data Transformation Acceleration using Deterministic Finite-State Transducers" (Regular)	Marziyeh Nourian, Tri Nguyen, Andrew A. Chien, and Michela Becchi
BigD299 "Adaptive Aggregation For Federated Learning" (Short)	K. R. Jayaram, Vinod Muthusamy, Gegi Thomas, Ashish Verma, and Mark Purcell
S18: Machine learning algorithms for Big Data (1)	
BigD256 "Exploring Multi-Time Context Vector and Randomness for Stock Movement Prediction" (Regular)	Kanghyeon Seo and Jihoon Yang
BigD260 "LLU-Swin:Low-Light Image Enhancement with U-shaped Swin Transformer" (Regular)	Lijiang Shao, Wenjin Wang, Shiguo Huang, and Xiaolin Li
BigD302 "AuxPOS: Improving Grammatical Correctness with Big Data Based Text Summarization" (Regular)	Rui Zhang, Jianjun Yu, and Yuanchun Zhou
BigD365 "Spatial Clustering Method of Historical AIS Data for Maritime Traffic Routes Extraction" (Regular)	Lubna Eljabu, Mohammad Etemad, and Stan Matwin
BigD297 "A Convergence Theory for Federated Average: Beyond Smoothness" (Short)	Xiaoxiao Li, Zhao Song, Runzhou Tao, and Guangyi Zhang
BigD377 "Adaptive Knowledge Transfer on Evolving Domains" (Short)	Jun Wu, Hanghang Tong, Elizabeth Ainsworth, and Jingrui He
S19: Complex Big Data Applications (2)	
BigD444 "Encouraging Crowd Avoidance Behavior using Dynamic Pricing Framework Towards Preventing the Spread of COVID-19" (Regular)	Keiichi Ochiai, Hiroyuki Sato, Hiroshi Kawakami, Takahiro Ide, Toru Otaki, Akira Yamada, Tatsuya Yano, Hiroki Okawa, Takuya Shirai, and Yutaka Arakawa
BigD579 "Multi-Behavior Recommendation with Hyperbolic Geometry" (Regular)	Di You, Thanh Tran, and Kyumin Lee
BigD604 "ESEP: Data-Driven Emergency and Safe Evacuation Driving Path Planning During Natural Catastrophes" (Regular)	Shohaib Mahmud, Haiying Shen, Ying Natasha Zhang Foutz, and Joshua Anton
BigD327 "Leveraging Subgraph Structure for Exploration and Analysis of Bitcoin Address" (Short)	Yuexin Xiang, Tiantian Li, and Yuquan Li
BigD337 "Secure Multi-party kNN Search in Large-scale Spatial Data Federation" (Short)	Yuanyuan Zhang, Yexuan Shi, Nan Zhou, Yi Xu, and Ke Xu
BigD396 "Teachers in Social Media: A Gender-aware Behavior Analysis" (Short)	Hamid Karimi, Kaitlin Torphy Knake, and Kenneth A. Frank
S20: Deep learning for Big Data (3)	
BigD421 "Heterogeneity-Aware Adaptive Federated Learning Scheduling" (Regular)	Jingoo Han, Ahmad Faraz Khan, Syed Zawad, Ali Anwar, Nathalie Baracaldo Angel, Yi Zhou, Feng Yan, and Ali R. Butt
BigD527 "EFFGAN: Ensembles of fine-tuned federated GANs" (Regular)	Ebba Ekblom, Edvin Listo Zec, and Olof Mogren
Fucxxy kBigD536 "Randomize Adversarial Defense in a Light Way" (Regular)	Ji-Young Park, Lin Liu, Jixue Liu, and Jiuyong Li
BigD443 "Dynamic Cell Structure via Recursive-Recurrent Neural Networks" (Short)	Xin Qian, Matthew Kennedy, and Diego Klabjan
BigD484 "Road Rutting Detection using Deep Learning on Images" (Short)	Poonam Kumari Saha, Deeksha Arya, Ashutosh Kumar, Hiroya Maeda, and Yoshihide Sekimoto
BigD516 "Asymmetric Self-Supervised Graph Neural Networks" (Short)	Zhuo Tan, Bin Liu, and Guosheng Yin
S21: Machine learning algorithms for Big Data (2)	

BigD490 "Efficient and Scalable Implicit Graph Neural Networks with Virtual Equilibrium" (Regular)	Qi Chen, Yifei Wang, Yisen Wang, Jianlong Chang, Qi Tian, Jiansheng Yang, and Zhouchen Lin
BigD587 "GQFormer: A Multi-Quantile Generative Transformer for Time Series Forecasting" (Regular)	Shayan Jawed and Lars Schmidt-Thieme
BigD630 "Robust and Resource-efficient Machine Learning Aided Viewport Prediction in Virtual Reality" (Regular)	Yuang Jiang, Konstantinos Poularakis, Diego Kiedanski, Sastry Kompella, and Leandros Tassiulas
BigD564 "Fuzzy Law: Towards Creating a Novel Explainable Technology-Assisted Review System for e-Discovery" (Short)	Charles Courchaine and Ricky Sethi
BigD569 "Robust Learning with Noisy Label Detection and Counterfactual Correction" (Short)	Wenting Qi and Charalampos Chelmis
BigD574 "Label Denoising and Counterfactual Explanation with A Plug and Play Framework" (Short)	Wenting Qi and Charalampos Chelmis

S22: Data Acquisition, Pre-processing, and Integration	
BigD348 "An approach to constructing a graph data repository for course recommendation based on IT career goals in the context of big data" (Regular)	Thu Nguyen, Ngoc Vu, and Binh Ly
BigD462 "Overcoming Challenges of Synthetic Data Generation" (Regular)	Kevin Fang, Vaikkunth Mugunthan, Vayd Ramkumar, and Lalana Kagal
BigD689 "Two-Stage Sampling: A Framework for Imbalanced Classification With Overlapped Classes" (Regular)	Neni Alya Firdausanti, Tirana Noor Fatyanosa, Mahendra Data, Israel Mendonca, and Masayoshi Aritsugi
BigD489 "Data Virtual Machines: Simplifying Data Sharing, Exploration & Querying in Big Data Environments" (Short)	Damianos Chatziantoniou, Verena Kantere, Nikos Antoniou, and Angeliki Gantzia
BigD819 "Efficient Privacy Preserving Record Linkage at Scale using Apache Spark" (Short)	Alexandros Karakasidis and Georgia Koloniari
BigD332 "Clustering-based Unsupervised Generative Relation Extraction" (Short)	Chenhan Yuan, Ryan Rossi, Andrew Katz, and Hoda Eldardiry

S23: Big Data in Real Life Applications (1)	
BigD500 "Semantic-based Attention model for Hospital Readmission Prediction" (Short)	Sea Jung Im, Yue Xu, and Jason Watson
BigD502 "Graph Structure Neural Differential Equations on Spatio-temporal Prediction" (Short)	Hangtao He and Kejiang Ye
BigD511 "Hypergraph Learning based Recommender System for Anomaly Detection, Control and Optimization" (Short)	Sakhinana Sagar Srinivas, Rajat Kumar Sarkar, and Venkataramana Runkana
BigD523 "Auto-Regressive Self-Attention Models for Diagnosis Prediction on Electronic Health Records" (Short)	Pascal Wullschleger, Simone Lionetti, Donnacha Daly, Francesca Volpe, and Grégoire Caro
BigD531 " Towards Automatic Cetacean Photo-Identification: A Framework for Fine-Grain, Few-Shot Learning in Marine Ecology" (Short)	Cameron Trotter, Nick Wright, A. Stephen McGough, Matt Sharpe, Barbara Cheney, Mònica Arso Civil, Reny Tyson Moore, Jason Allen, and Per Berggren
BigD619 "Evaluating Distribution System Reliability with Hyperstructures Graph Convolutional Nets" (Short)	Yuzhou Chen, Tian Jiang, Miguel Heleno, Alexandre Moreira, and Yulia R. Gel

S24: Data Market and Trust	
BigD723 "A Task-Driven Privacy-Preserving Data-Sharing Framework For Industrial Internet" (Regular)	Parshin Shojaee, Yingyan Zeng, Muntasir Wahed, Avi Seth, Ran Jin, and Ismini Lourentzou
BigD829 "FL-Market: Trading Private Models in Federated Learning" (Regular)	Shuyuan Zheng, Yang Cao, Masatoshi Yoshikawa, Huizhong Li, and Qiang Yan
BigD388 "Robust Text CAPTCHAs Using Adversarial Examples" (Regular)	Rulin Shao

BigD537 "SMARDY: Zero-Trust FAIR Marketplace for Research Data" (Short)	Ion Dorinel Filip, Cosmin Ionite, Alba Gonzalez-Cebrian, Mihaela Balanescu, Ciprian Dobre, Adriana E. Chis, Dave Feenan, Adrian-Alexandru Buga, Ioan-Mihai Constantin, George Suciu, George Iordache, and Horacio Gonzalez-Velez
BigD273 "Efficient Soft-Error Detection for Low-precision Deep Learning Recommendation Models" (Short)	Sihuan Li and Zizhong Chen
BigD441 "RAF: Recursive Adversarial Attacks on Face Recognition Using Extremely Limited Queries" (Short)	Keshav Kasichainula, Hadi Mansourifar, and Weidong Shi
S25: Complex Big Data Applications (3)	
BigD611 "Accurate Stock Movement Prediction with Self-supervised Learning from Sparse Noisy Tweets" (Regular)	Yejun Soun, Jaemin Yoo, Minyong Cho, Jihyeong Jeon, and U Kang
BigD735 "APIP: Attention-based Protein Representation Learning for Protein-Ligand Interface Prediction" (Regular)	Tian Xia, Bo Hui, and Wei-Shinn Ku
BigD397 "Penalty Prediction Based on Modulated Hierarchical Attention Coupled with Legal Attribute Recognition" (Short)	Jingzhe Liu and Peng Wu
BigD401 "An Open Case-based Reasoning Framework for Personalized On-board Driving Assistance in Risk Scenarios" (Short)	Wenbin Gan, Minh-Son Dao, and Koji Zettsu
BigD460 "Automatic Eating Behavior Detection from Wrist Motion Sensor Using Bayesian, Gradient Boosting, and Topological Persistence Methods" (Short)	Yu-Min Chung, Amir Nikooienejad, and Bo Zhang
S26: Deep learning for Big Data (4)	
BigD540 "RGB Color Model Aware Computational Color Naming and Its Application to Data Augmentation" (Regular)	Zipei Yan, Linchuan Xu, Atsushi Suzuki, Jing Wang, Jiannong Cao, and Jun Huang
BigD601 "Time Series Anomaly Detection using Prediction-Reconstruction Mixture Errors" (Regular)	Lawrence Wong, Dongyu Liu, Laure Berti-Equille, and Kalyan Veeramachaneni
BigD624 "DFFNet: Dynamic Feature Fusion Network for Weakly Supervised Object Detection in Remote Sensing Images" (Short)	Mengmeng Zhu, Shouhong Wan, Peiquan Jin, and Peiyi Zhang
BigD625 "Exploring the Target Distribution for Surrogate-Based Black-Box Attacks" (Short)	Raha Moraffah, Paras Sheth, and Huan Liu
BigD742 "Continuous Prompt Tuning Based Textual Entailment Model for E-commerce Entity Typing" (Short)	Yibo Wang, Congying Xia, Guan Wang, and Philip Yu
BigD585 "Forecasting Emerging Pandemics with Transfer Learning and Location-aware News Analysis" (Regular, video-presentation)	Jing Chen, German Creamer, and Yue Ning
S27: Machine learning algorithms for Big Data (3)	
BigD699 "AnyStreamKM: Anytime k-medoids Clustering for Streaming Data" (Regular)	Jagat Sesh Challa, Dhruv Rawat, Navneet Goyal, and Poonam Goyal
BigD785 "Semi-supervised Embedding for Scalable and Accurate Time Series Clustering" (Regular)	Andrew Hill, Russell Bowler, Katerina Kechris, and Farnoush Banaei-Kashani
BigD813 "Multiple Tiered Treatments Optimization with Causal Inference on Response Distribution" (Regular)	Tao Huang, Qingyang Li, and Zhiwei Qin
BigD613 "Fast Support Vector Machine Using Singular Value Decomposition" (Short)	Sabuj Laskar and Muhammad Abdullah Adnan
BigD776 "Critic-over-Actor-Critic Modeling: Finding Optimal Strategy in ICU Environments" (Short)	Riazat Ryan and Ming Shao
BigD814 "Uncertainty Aware Trader-Company Method: Interpretable Stock Price Prediction Capturing Uncertainty" (Short)	Yugo Fujimoto, Kei Nakagawa, Kentaro Imajo, and Kentaro Minami

S28: Data Acquisition, Pre-processing, and Integration	
BigD728 "BigFeat: Scalable and Interpretable Automated Feature Engineering Framework" (Regular)	Hassan Eldeeb, Shota Amashukeli, and Radwa Elshawi
BigD580 "Operator Placement for Spatio-temporal Tasks" (Regular)	Daniel Glake, Mareike Schmidt, Felix Kiehn, Fabian Panse, Ulfia Lenfers, Thomas Clemen, and Norbert Ritter
BigD717 "GenSyn: A Multi-stage Framework for Generating Synthetic Microdata using Macro Data Sources" (Short)	Angeela Acharya, Siddhartha Sikdar, Sanmay Das, and Huzefa Rangwala
BigD721 "Generating Interpretable Features for Context-Aware Document Clustering: A Cybersecurity Case Study" (Short)	Luis Felipe Gutiérrez and Akbar Namin
BigD565 "Visualizing and Querying Large-scale Structured Datasets by Learning Multi-layered 3D Meta-Profiles" (Short)	Michael Gubanov and Sophie PAvia
BigD487 "Resource Efficient Profiling of Spatial Variability in Performance of Regression Models" (Short)	Menuka Warushavithana, Saptashwa Mitra, and Shrideep Pallickara
BigD533 "Proactive Query Expansion for Streaming Data Using External Sources" (Short)	Farah Alshanik, Amy Apon, Yuheng Du, Alexander Herzog, and Ilya Safro

S29: Visual Analytics for Big Data	
BigD275 "DCPViz: A Visual Analytics Approach for Downscaled Climate Projections" (Regular)	Abdullah-Al-Raihan Nayeem, Huikyo Lee, Dongyun Han, Mohammad Elshambakey, William J. Tolone, Todd Dobbs, Daniel Crichton, and Isaac Cho
BigD646 "Shapelet-based Temporal Association Rule Mining for Multivariate Time Series Classification" (Regular)	Omar Bahri, Soukaina Filali Boubrahimi, and Shah Muhammad Hamdi
BigD833 "Visual Analytics System of Comprehensive Data Quality Improvement for Machine Learning using Data- and Process-driven Strategies" (Short)	Hyein Hong, Sangbong Yoo, Yejin Jin, Chanyoung Yoon, Soobin Yim, Seokhwan Choi, and Yun Jang
BigD486 "Characterizing Spontaneous Ideation Contest on Social Media: Case Study on the Name Change of Facebook to Meta" (Short)	Kunihiro Miyazaki, Takayuki Uchiba, Haewoon Kwak, and Jisun An
BigD554 "Learning on Health Fairness and Environmental Justice via Interactive Visualization" (Short)	Abdullah-Al-Raihan Nayeem, Ignacio Segovia-Dominguez, Huikyo Lee, Dongyun Han, Yuzhou Chen, Zhiwei Zhen, Yulia Gel, and Isaac Cho

S30: Trust, resilience, privacy, and security issues	
BigD420 "Fraud Detection via Contrastive Positive Unlabeled Learning" (Regular)	Vinay M.S., Shuhan Yuan, and Xintao Wu
BigD463 "MulBot: Unsupervised Bot Detection Based on Multivariate Time Series" (Regular)	Lorenzo Mannocci, Stefano Cresci, Anna Monreale, Athina Vakali, and Maurizio Tesconi
BigD709 "Defending Evasion Attacks via Adversarially Adaptive Training" (Regular)	Minh-Hao Van, Wei Du, Xintao Wu, Feng Chen, and Aidong Lu
BigD685 "Heterogeneous Randomized Response for Differential Privacy in Graph Neural Networks" (Short)	Khang Tran, Phung Lai, Hai Phan, Issa Khalil, Yao Ma, Abdallah Khreishah, My Thai, and Xintao Wu
BigD712 "Trustworthy Distributed Deep Neural Network Training in an Edge Devices Network" (Short)	Sudipta Saha Shubha and Haiying Shen
BigD559 "Asymmetric Differential Privacy" (Short)	Shun Takagi, Fumiyuki Kato, Yang Cao, and Masatoshi Yoshikawa

S31: Trust, resilience, privacy, and security issues	
BigD249 "User-Entity Differential Privacy in Learning Natural Language Models" (Regular)	Phung Lai, NhatHai Phan, Tong Sun, Rajiv Jain, Franck Dernoncourt, Jiuxiang Gu, and Nikolaos Barmpalios
BigD756 "Location-based Alert System Using Searchable Encryption with Hilbert Curve Encoding" (Regular)	Po-wei Harn, Sai Deepthi Yeddula, Libo Sun, Min-Te Sun, and Wei-Shinn Ku

S32: Social Web Search and Mining	
BigD493 "Proactive Prioritization of App Issues via Contrastive Learning" (Regular)	Moghis Fereidouni, Adib Mosharrof, Umar Farooq, and A.B. Siddique
BigD603 "Abusive Language Detection with Graph based Multi-task Learning" (Regular)	Chunyun Zhang, Xi Zhang, Quan Wang, Jiayi Liang, Ge Zhang, Sanchuan Guo, Wenyu Zang, and Yongdong Zhang
BigD353 "Emotion-Cause Relationship Between Clauses Prediction: a Novel Method Based on BERT for Emotion-Cause Pair Extraction" (Short)	Rui Fan, Tingting He, Yufan Wang, Jie Hong, and Xinhui Tu
BigD766 "HyperTwitter: A Hypergraph-based Approach to Identify Influential Twitter Users and Tweets" (Short)	Lulwah Alkulaib, Abdulaziz Alhamadani, Shailik Sarkar, and Chang-Tien Lu
BigD394 "Understanding COVID-19 Vaccine Campaign on Facebook with Minimal Supervision" (Regular , Video presentation)	Tunazzina Islam and Dan Goldwasser

S33: Big Data in Real Life Applications (2)	
BigD737 "Transition-Aware Multi-Activity Knowledge Tracing" (Regular)	Siqian Zhao, Chunpai Wang, and Shaghayegh Sahebi
BigD751 "Shape-based Evaluation of Epidemic Forecasts" (Regular)	Ajitesh Srivastava, Satwant Singh, and Fiona Lee
BigD789 "Enhancing COVID-19 Ensemble Forecasting Model Performance Using Auxiliary Data Sources" (Regular)	Aniruddha Adiga, Gursharn Kaur, Benjamin Hurt, Lijing Wang, Przemyslaw Porebski, Srinivasan Venkatramanan, Bryan Lewis, and Madhav Marathe
BigD627 "The impact of product descriptions on customers' trust in sellers and purchase intention" (Short)	Yi Sun and Yukio Ohsawa
BigD644 "DL-BERT: a time-aware double-level BERT-style model with pre-training for disease prediction" (Short)	Xianlai Chen, Jiamiao Lin, and Ying An
BigD669 "Vehicle re-identification and trajectory reconstruction using multiple moving cameras in the CARLA driving simulator" (Short)	Ashutosh Kumar, Takehiro Kashiyama, Hiroya Maeda, Fan Zhang, Hiroshi Omata, and Yoshihide Sekimoto

S34: Large-scale Recommendation Systems and Social Media Systems	
BigD458 "Learning Diversity Attributes in Multi-Session Recommendations" (Regular)	Nassim Bouarour, Idir Benouaret, and Sihem Amer-Yahia
BigD474 "RI-GCN: Review-aware Interactive Graph Convolutional Network for Review-based Item Recommendation" (Regular)	Yijin Cai, Yilei Wang, Weijin Wang, and Wenting Chen
BigD407 "SandPiper: A Cost-Efficient Adaptive Framework for Online Recommender Systems" (Short)	prashanth thinakaran, Jashwant Raj Gunasekaran, Mahmut Taylan Kandemir, and Chita R Das
BigD467 "Debiasing Graph Transfer Learning via Item Semantic Clustering for Cross-Domain Recommendations" (Short)	Zhi Li, Daichi Amagata, Yihong Zhang, Takahiro Hara, Shuichiro Haruta, Kei Yonekawa, and Mori Kurokawa
BigD521 "Question-Attentive Review-Level Recommendation Explanation" (Short)	Trung-Hoang Le and Hady W. Lauw

S35: Big Data Analytics in Government, Public Sector and Society in General	
BigD232 "MRA-DGCN: Multi-Range Attention-Based Dynamic Graph Convolutional Network for Traffic Prediction" (Regular)	Renyi Chen and HUAXIONG YAO
BigD281 "Detecting languages in streetscapes using deep convolutional neural networks" (Regular)	You Xuan Thung, Tom Benson, and Nikita Klimenko
BigD350 "How to Protect the Public Opinion Against New Types of Bots?" (Regular)	Jan Ludwig Reubold, Stephan Cornelius Escher, Christian Wressnegger, and Thorsten Strufe
BigD491 "Confli-T5: An AutoPrompt Pipeline for Conflict Related Text Augmentation" (Short)	Erick Skorupa Parolin, Yibo Hu, Latifur Khan, Patrick T. Brandt, Javier Osorio, and Vito D'Orazio

BigD588 "New Technologies, Old Propaganda Strategies: How Russian Disinformation about Biolabs in Ukraine was spread via Conservative and Anti-Vaccination Discourse on Twitter" (Short)	Iuliia Alieva and Kathleen M. Carley
BigD659 "Cross-Lingual Text Classification of Transliterated Hindi and Malayalam" (Short)	Jitin Krishnan, Antonios Anastasopoulos, Hemant Purohit, and Huzefa Rangwala

S36: Deep learning for Big Data (5)	
BigD635 "Physics-based multiple time-series univariate forecasting" (Regular)	Sumanta Mukherjee, Arindam Jati, Kanthi Sarpatwar, and Roman Vaculin
BigD653 "Role-Oriented Dynamic Network Embedding" (Regular)	Ting Pan, Wenjun Wang, Minglai Shao, Yueheng Sun, and Pengfei Jiao
BigD668 "PromptRGD: Prompt Learning with Relation-aware Gradient Denoising for Low-resource Relation Extraction" (Regular)	Zihang Xu, Luoyi Fu, and Xinbing Wang
BigD767 "Cyberbully Detection Using BERT with Augmented Texts" (Short)	Xiaoyu Guo, Usman Anjum, and Justin Zhan
BigD773 "MBAG: A Scalable Mini-Block Adaptive Gradient Method for Deep Neural Networks" (Short)	Jaewoo Lee
BigD791 "Predictive Masking for Semi-Supervised Graph Contrastive Learning" (Short)	Yufei Jin and Xingquan Zhu

S37: Learning Essential Features in Big Data	
BigD496 "SCM-VAE: Learning Identifiable Causal Representations via Structural Knowledge" (Regular)	Aneesh Komanduri, Yongkai Wu, Wen Huang, Feng Chen, and Xintao Wu
BigD570 "bigg2vec: Fast and Memory-Efficient Representation Learning for Billion-Scale Graphs on a Single Machine" (Regular)	Mangesh Bendre, Mahashweta Das, Vineeth Rakesh, Fei Wang, and Hao Yang
BigD507 "A Functional approach for Two Way Dimension Reduction in Time Series" (Regular)	Aniruddha Rajendra Rao, Haiyan Wang, and Chetan Gupta
BigD344 "Dynamic network of commodity futures market and systemic risk contribution of key commodities" (Regular)	Ke Huang, Jifeng Sun, Zuominyang Zhang, and Ying Ye
BigD817 "Residual-Quantile Adjustment for Adaptive Training of Physics-informed Neural Network" (Regular)	Jiayue Han, Zhiqiang Cai, Zhiyou Wu, and Xiang Zhou

S38: Data Ecosystem and Its Evaluation	
BigD419 "Fair Collective Classification in Networked Data" (Regular)	Karuna Bhaila, Yongkai Wu, and Xintao Wu
BigD461 "Robust Personalized Federated Learning under Demographic Fairness Heterogeneity" (Regular)	Alycia Carey, Wei Du, and Xintao Wu
BigD499 "InfoFair: Information-Theoretic Intersectional Fairness" (Regular)	Jian Kang, Tiankai Xie, Xintao Wu, Ross Maciejewski, and Hanghang Tong
BigD582 "Fair Regression under Sample Selection Bias" (Regular)	Wei Du, Xintao Wu, and Hanghang Tong
BigD716 "CO2 Emission Aware Scheduling for Deep Neural Network Training Workloads" (Short)	Kawsar Haghshenas, Brian Setz, and Marco Aiello
BigD440 "Boosting Demographic Fairness of Face Attribute Classifiers via Latent Adversarial Representations" (Short)	Huimin Zeng, Zhenrui Yue, Lanyu Shang, Yang Zhang, and Dong Wang
BigD805 "SG-CF: Shapelet-Guided Counterfactual Explanation for Time Series Classification" (Short)	Peiyu Li, Soukaina Boubrahimi, and Shah Hamdi

S39: Social Web Search and Mining	

BigD634 "Nothing Stands Alone: Leveraging News Relations through a Hypergraph for Fake News Detection" (Regular)	Ujun Jeong, Kaize Ding, Lu Cheng, Ruocheng Guo, Kai Shu, and Huan Liu
BigD739 "Spatial Density-based User Identity Linkage across Social Networks" (Regular)	Hui Xue, Bo Sun, Weixuan Mao, Jianjun Lin, Yijing Zhang, Xiaoyu Liu, Xiaodu Yang, and Ziqian Chen
BigD802 "MUSCAT: Multilingual Rumor Detection in Social Media Conversations" (Regular)	Md Rabiul Awal, Minh Dang Nguyen, Roy Ka-Wei Lee, and Kenny Tsu Wei Choo

S40: Big Data in Real Life Applications (3)	
BigD713 "Building the Next-Generation Radio Networks Planning Infrastructure Using Datacubes" (Short)	Peter Baumann, Johannes Boensmann, and Bang Pham Huu
BigD746 "Mobile Application Behaviour Anomaly Detection based on API Calls" (Short)	Fernando Kaway Carvalho Ota, Farouk Damoun, Sofiane Lagraa, Enriqueta Patricia Becerra Sanchez, Christophe Atten, Jean Hilger, and Radu State
BigD772 "MatPhase: Material phase prediction for Li-ion battery Reconstruction using Hierarchical Curriculum Learning" (Short)	Anika Tabassum, Nikhil Muralidhar, Ramakrishnan Kannan, and Srikanth Allu
BigD801 "A Unified Framework to Assess Market Implications of Institutional Investments" (Short)	Taruna Seth and Vipin Chaudhary
BigD841 "AE-smnsMLC: Multi-Label Classification with Semantic Matching and Negative Label Sampling for Product Attribute Value Extraction" (Short)	Zhongfen Deng, Wei-Te Chen, Lei Chen, and Philip Yu
BigD842 "Deep Learning for Destination Choice Modeling: A Fundamental Approach for National Level People Flow Reconstruction" (Short)	Yanbo Pang and Yoshihide Sekimoto

S41: Large-scale Recommendation Systems and Social Media Systems	
BigD514 "TimeKit: A Time-series Forecasting-based Upgrade Kit for Collaborative Filtering" (Regular)	Seoyoung Hong, Minju Jo, Seungji Kook, Jaeeun Jung, Hyowon Wi, and Noseong Park
BigD652 "Mitigating Frequency Bias in Next-Basket Recommendation via Deconfounders" (Regular)	Xiaohan Li, Zheng Li, Luyi Ma, Kaushiki Nag, Stephen Guo, Philip Yu, and Kannan Achan
BigD683 "Sequential Recommendation with Auxiliary Item Relationships via Multi-Relational Transformer" (Regular)	Ziwei Fan, Zhiwei Liu, Chen Wang, Peijie Huang, Peng Hao, and Philip Yu
BigD777 "Time-aware Hyperbolic Graph Attention Network for Session-based Recommendation" (Regular)	Xiaohan Li, Yuqing Liu, Zheng Liu, and Philip Yu
BigD676 "Neighborhood Preserving Embedding via Capsules for Collaborative Filtering" (Short)	Xuan Li and Li Zhang

S42: Big Data Analytics for Value Creation in the Real Life	
BigD362 "Detecting Neighborhood Gentrification at Scale via Street-level Visual Data" (Regular)	Tianyuan Huang, Timothy Dai, Zhecheng Wang, Hesu Yoon, Hao Sheng, Andrew Ng, Ram Rajagopal, and Jackelyn Hwang
BigD707 "Machine Learning for Improved Post-fire Debris Flow Likelihoods Prediction" (Regular)	Daniel Roten, Jessica Block, Daniel Crawl, Jenny Lee, and Ilkay Altintas
BigD479 "Store Congestion Forecast under the Pandemic using Point of Sales Statistics" (Regular)	Masahiro Bessho and Ken Sakamura
BigD547 "Cough Classification with Deep Derived Features using Audio Spectrogram Transformer" (Regular)	Julio Valdes, Karim Habashy, Pengcheng Xi, Madison Cohen-McFarlane, Bruce Wallace, Rafik Goubran, and Frank Knoefel
BigD214 "MeWP: Meta-Learning based Water-Level Prediction" (Short)	Justin Mao, Oliver Yun, Conner Kim, Haipeng Chang, and Xuehan Sun

S43: Deep learning for Big Data (6)	
BigD711 "Deep Learning For Time Series Classification Using New Hand-Crafted Convolution Filters" (Regular)	Ali Ismail-Fawaz, Maxime Devanne, Jonathan Weber, and Germain Forestier

BigD731 "AdvCat: Domain-Agnostic Robustness Assessment for Cybersecurity-Critical Applications with Categorical Inputs" (Regular)	Helene Orsini, Hongyan Bao, Yujun Zhou, Xiangrui Xu, Yufei Han, Longyang Yi, Wei Wang, Xin Gao, and Xiangliang Zhang
BigD752 "IGRP: Iterative Gradient Rank Pruning for Finding Graph Lottery Ticket" (Regular)	Po-wei Harn, Sai Deepthi Yeddula, Bo Hui, Jie Zhang, Libo Sun, Min-Te Sun, and Wei-Shinn Ku
BigD811 "Communication-Efficient TeraByte-Scale Model Training Framework for Online Advertising" (Short)	Weijie Zhao, Xuewu Jiao, Mingqing Hu, Xiaoyun Li, Xiangyu Zhang, and Ping Li
BigD822 "A Generalized Multimodal Deep Learning Model for Early Crop Yield Prediction" (Short)	Arshveer Kaur, Poonam Goyal, Kartik Sharma, Lakshay Sharma, and Navneet Goyal
BigD855 "Dynamic Graph Attention Recurrent Network for Traffic Prediction" (Short)	JIA GUO, HUAXIONG YAO, JUNTAO YANG, ZUOQUAN XIE, RENYI CHEN, and MENGLING HU
S44: Link and Graph Mining	
BigD760 "MetaKGRec: Collaborative Meta-Knowledge-Graph Enhanced Recommender System" (Regular)	Liangwei Yang, Shen Wang, Jibing Gong, Shaojie Zheng, Shuying Du, Zhiwei Liu, and Philip S. Yu
BigD774 "Temporal Graph Representation Learning via Maximal Cliques" (Regular)	Shima Khoshraftar, Aijun An, and Nastaran Babanejad
BigD475 "Temporal Adaptive Aggregation Network for Dynamic Graph Learning" (Short)	Man Wu and Xingquan Zhu
BigD542 "Graggle: A Graph-based Approach to Document Clustering" (Short)	Isaiah King and H. Howie Huang
BigD596 "Dynamic Graph Node Classification via Time Augmentation" (Short)	Jiarui Sun, Mengting Gu, Chin-Chia Michael Yeh, Yujie Fan, Girish Chowdhary, and Wei Zhang
S45: Computational Models and Information Quality	
BigD798 "Persistence Homology of Proximity Hyper-Graphs for Higher Dimensional Big Data" (Regular)	Rohit Singh and Philip Wilsey
BigD803 "Evaluating Captioning Models using Markov Logic Networks" (Short)	Monika Shah, Somdeb Sarkhel, and Deepak Venugopal
BigD824 "Appley: Approximate Shapley Value for Model Explainability in Linear Time" (Short)	Md Shafiul Alam and Ying Xie
BigD847 "Informative Initialization and Kernel Selection Improves t-SNE for Biological Sequences" (Short)	Prakash Chourasia, Sarwan Ali, and Murray Patterson

Industry and Government Program Sessions

I&G S1: Deep Learning (1)	
N242 "Enhanced Video BERT for Fast Video Advertisement Retrieval"(Regular)	Yi Yang, Tan Yu, Jie Liu, Zhipeng Jin, Xuewu Jiao, Yi Li, Shuanglong Li, and Ping Li
N292 "Tree-based Text-Vision BERT for Video Search in Baidu Video Advertising"(Regular)	Tan Yu, Jie Liu, Yi Yang, Yi Li, Hongliang Fei, and Ping Li
N216 "Minimal Cost Device Calibration in Spectral Analysis via Meta Learning: Towards Efficient Deployment of Deep Neural Networks in Industry"(Regular)	Xiang Xie, Muen Jin, Anqi Chu, and Wilhelm Stork
N275 "Collaborative Filtering Guided Deep Reinforcement Learning for Sequential Recommendations"(Short)	Vahid Azizi, Saayan Mitra, and Xiang Chen

N230 "Bilateral Trade Flow Prediction by Gravity Graph Auto-encoder"(Short)	Naoto Minakawa, Kiyoshi Izumi, and Hiroki Sakaji
N234 "Enabling Real-Time Low-Cost Spectral Analysis on Edge Devices with Deep Neural Networks: a Robust Hybrid Approach"(Short)	Xiang Xie, Tiantian Chen, and Wilhelm Stork

I&G S2: Deep Learning (2)

N240 "ScaDLES: Scalable Deep Learning over Streaming data at the Edge"(Regular)	Sahil Tyagi and Martin Swany
N244 "Protein-Protein Interactions (PPIs) Extraction from Biomedical Literature using Attention-based Relational Context Information"(Regular)	Gilchan Park, Sean Mc Corkle, Carlos Soto, Ian Blaby, and Shinjae Yoo
N289 "Semantic Segmentation Approaches in Crop Row Detection"(Short)	Rashed Doha, Mohammad Al Hasan, and Sohel Anwar
N269 "A Geomagnetic Sensor Dataset for Traffic Flow Prediction"(Poster)	Huanchen WANG, Quanjun Chen, Zheng DONG, Xuan Song, Hao Tian, Donglong YANG, and Manxia LIU

I&G S3: Graph analysis (1)

N287 "Sub-Sequence Graph Representation Learning on High Variability Data for Dynamic Risk Prediction in Critical Care"(Regular)	Ankur Teredesai, Sijin Huang, Tucker Stewart, Juhua Hu, Armaan Thakker, Katie Stern, and Grant O'Keefe
N283 "StarBridge: a topological multidimensional subgraph analysis to detect fraudulent nodes and rings in telecom network"(Poster)	Pedro Fidalgo, Rui Lopes, and Christos Faloutsos
N280 "Comparative Reasoning for Knowledge Graph Fact Checking"(Poster)	Lihui Liu, Houxiang Ji, Jiejun Xu, and Hanghang Tong

I&G S4: Graph analysis (2)

N233 "SETN: Stock Embedding Enhanced with Textual and Network Information"(Short)	Takehiro Takayanagi, Hiroki Sakaji, and Kiyoshi Izumi
N261 "Stream2Graph: Dynamic Knowledge Graph for Online Learning Applied in Large-scale Network"(Short)	Mariam BARRY, Albert BIFET, Raja CHIKY, Saad EL JAOUHARI, Jacob MONTIEL, Aissa EL OUAFI, Dhiaddedine YOUSFI, Eric GUERIZEC, and Aurel NOBIAL
N243 "Graph Representation Learning based Vulnerable Target Identification in Ransomware Attacks"(Short)	Wenqi Wei, Mu Qiao, Eric Butler, and Divyesh Jadav

I&G S5: Clustering

N260 "In-DBMS K-means Clustering for Binary Streams"(Regular)	Carlos Garcia-Alvarado and Carlos Ordonez
N226 "A Hybrid Score to Optimize Clustering Hyperparameters for Online Search Term Data"(Short)	Ariana Martino and Allison Rossetto
N232 "Improving Paper Classification Using Forecasting"(Short)	Jason Zhang, Krerkkiat Chusap, Wei Zhang, and Chang Liu
N206 "A Scalable, Geospatial Segmentation Method for Visiting Trend Analysis"(Poster)	Sumit Jain, Kazune Furudo, Yuiko Kumagai, and Satoshi Kamatani

I&G S6: Big Data Systems (1)

N204 "Digital Data Platform for Connected Clinical Trials"(Short)	Hui Zhang, Ju Ji, Guangchen Ruan, Neel Patel, Regan Giesting, Leah Miller, Yi Lin Yang, and Jian Yang
N231 "Learning skills adjacency representations for optimized reskilling recommendations"(Short)	Saksham Gandhi, Raj Nagesh, and Subhro Das
N246 "The Data Recovery Service in NoSQL"(Short)	Hung-Chang Hsiao

N251 "A monitoring framework for deployed machine learning models with supply chain applications"(Short)	Bradley Eck, Duygu Kabakci-Zorlu, Yan Chen, France Savard, and Xiaowei Bao
N288 "Distributed Incremental Machine Learning for Big Time Series Data"(Short)	Dhaval Salwala, Seshu Tirupathi, Brian Quanz, Wesley Gifford, Stuart Siegel, Vijay Ekambaram, and Arindam Jati
N278 "Regression based Optimizer Statistics generation based on q-error"(Short)	Parag Paul, Wenlu Wang, Haiwuan Chen, and Wei-Shinn Ku
N236 "Recovery-Robust Inquiry to External Services from Stream Processing Application"(Poster)	Yuki Nishiguchi, Hiroaki Aoki, Takafumi Onishi, Julius Michaelis, and Yasuhiko Kanemasa
N268 "Smart System for Multi-Cloud Pathways"(Poster)	Indervir Singh Banipal and Shubhi Asthana
N208 "DSServe - Data Science using Serverless"(Poster)	Dhaval Patel, Shuxin Li, and Jayant Kalagnanam

I&G S7: Legal applications

N255 "Named Entity Recognition in Long Documents: An End-to-end Case Study in the Legal Domain"(Regular)	Hossein Keshavarz, Zografoula Vagena, Pigi Kouki, Ilias Fountalis, Mehdi Mabrouki, Aziz Belaweid, and Nikolaos Vasiloglou
N257 "Explainable Text Classification Techniques in Legal Document Review: Locating Rationales without Using Human Annotated Training Text Snippets"(Regular)	Christian Mahoney, Peter Gronvall, Nathaniel Huber-Fliflet, and Jianping Zhang
N256 "Integration of Rule-Based Reasoning and Transfer Learning in Legal Document Review"(Short)	Robert Keeling, Ava Guo, Peter Gronvall, Nathaniel Huber-Fliflet, and Jianping Zhang
N282 "DedupeGov: A Platform for Deduplication of Large Volumes of Data From Natural and Legal Entities in the Governmental Field"(Short)	Marcos Carvalho, Vitor Mangaravite, Lucas Ponce, Luis Cantelli, Bruno Campoi, Gabriel Nunes, Bruno Paiva, Alberto Laender, and Marcos Gonçalves

I&G S8: Covid-19 Analysis

N252 "Large-Scale Knowledge Synthesis and Complex Information Retrieval from Biomedical Documents"(Short)	Shreya Saxena, Raj Sangani, Siva Prasad, Shubham Kumar, Mihir Athale, Rohan Awhad, and Vishal Vaddina
N217 "Media Coverage and Public Perception of Distance Learning During the COVID-19 Pandemic: A Topic Modeling Approach Based on BERTopic"(Poster)	Gloria Hristova and Nikolay Netov
N219 "The relationship between Twitter sentiment and mobility during the COVID-19 pandemic"(Poster)	Yoshiyuki Suimon, Hiroto Tanabe, and Kiyoshi Izumi

I&G S9: Advertisement and Recommendation

N285 "Boost CTR Prediction for New Advertisements via Modeling Visual Content"(Regular)	Tan Yu, Zhipeng Jin, Jie Liu, Yi Yang, Hongliang Fei, and Ping Li
N290 "From Billion to Trillion : Feature Fusion Network for Personalized Online Advertising Systems"(Regular)	Weijie Zhao, Peng Yang, Dong Li, Xing Shen, Lin Liu, and Ping Li
N279 "Conversion-Based Dynamic-Creative-Optimization in Native Advertising"(Short)	Yohay Kaplan, Yair Koren, Alex Shtoff, Tomer Shadi, and Oren Somekh
N253 "Learning from Disagreement for Event Detection"(Short)	Liang Wang, Junpeng Wang, Yan Zheng, Shubham Jain, Chin-Chia Michael Yeh, Zhongfang Zhuang, Javid Ebrahimi, and Wei Zhang
N209 "A Hybrid Approach to Similar Stock Recommender with Taxonomy and Behavior Data"(Poster)	Yizhi Mao, Miao Chen, Bill Dorn, and Yan He

I&G S10: Big Data Analysis (1)

N210 "Better Skill-based Job Representations, Assessed via Job Transition Data"(Poster)	Tyler Baldwin, Wyatt Clarke, Maysa Macedo, Rogerio Paula, and Subhro Das
N270 "Data Utilization in the Education Field by Local and Central Governments in Japan"(Poster)	Hikojiro Fujiwara and Satoru Hagino
N284 "Decomposing User-APP Graph into Subgraphs for Effective APP and User Embedding Learning"(Poster)	Tan Yu, Jun Zhi, Yufei Zhang, Jian Li, Hongliang Fei, and Ping Li

I&G S11: Big Data Analysis (2)

N286 "Scalable Household Identification using Mobile Engagement Data – A Weighted Two-Mode Network Approach"(Regular)	Vishnu Gowthem Thangaraj, Kajanan Sangaralingam, Nisha Verma, and Anindya Dutta
N241 "Mining Railway Grievances on Twitter for Efficient E-Governance in India"(Regular)	Swati Agarwal, Ashrut Kumar, and Rijul Ganguly
N267 "Implementation of Biased Big Data to the Japanese Official Labor Statistics Using Supervised Learning under Covariate Shift"(Regular)	Yuya Takada and Kiyoshi Izumi
N249 "Predictive model of frailty onset using Bayesian network"(Regular)	Yujiro Kawai, Eiichi Sakurai, Yuki Sugawara, Yukihiko Okada, Kai Tanabe, Akiko Tsukao, and Shinya Kuno
N250 "Earth Observation Data Utilization for SDGs Indicators: 15.4.2 and 11.3.1"(Poster)	Osamu Ochiai, Mariko Harada, and Ko Hamamoto

I&G S12: Big Data Systems (2)

N262 "StreamFlow: A System for Summarizing and Learning Over Industrial Big Data Streams"(Short)	Mariam BARRY, Saad EL JAOUHARI, Albert BIFET, Eric GUERIZEC, Jacob MONTIEL, and Raja CHIKY
N247 "HAIVAN: a Holistic ML Analytics Infrastructure for a Variety of Radio Access Networks"(Poster)	Hong-Linh Truong and Nguyen Ngoc Nhu Trang
N291 "FeatureBox: Feature Engineering on GPUs for Massive-Scale Ads Systems"(Poster)	Weijie Zhao, Xuewu Jiao, Xinsheng Luo, Jingxue Li, Belhal Karimi, and Ping Li
N272 "Automating privacy compliance in the decentralized enterprise"(Poster)	Gero Dittmann, Chris Giblin, Michael Osborne, and Rahul
N222 "Representation Learning on Graphs to Identifying Circular Trading in Goods and Services Tax"(Poster)	Priya Mehta, Sanat Bhargava, Sandeep Kumar, Ravi Kumar, and Sobhan Babu Ch

I&G S13: Big Data Applications (1)

N235 "Gradual Further Pre-training Architecture for Economics/Finance Domain Adaptation of Language Model"(Poster)	Hiroki Sakaji, Masahiro Suzuki, Kiyoshi Izumi, and Hiroyuki Mitsugi
N223 "SSAAM: Sentiment Signal-based Asset Allocation Method with Causality Information"(Poster)	Rei Taguchi, Hiroki Sakaji, and Kiyoshi Izumi
N273 "Detecting Group Behavior for Anti-Money Laundering With Incomplete Network Information"(Poster)	Pavlo Tertychnyi, Tommy Lindström, Changling Liu, and Marlon Dumas

I&G S14: Big Data Analysis (3)

N271 "Big data techniques for Industrial problem with little data"(Poster)	Elham Khabiri, Bhavna Agrawal, Joseph Lindquist, Yingjie Li, and Anuradha Bhamidipaty
N207 "TgraphSpot: Fast and Effective Anomaly Detection for Time-Evolving Graphs"(Poster)	Mirela Cazzolato, Saranya Vijayakumar, Xinyi Zheng, Meng-Chieh Lee, Namyong Park, Pedro Fidalgo, Bruno Lages, Agma Traina, and Christos Faloutsos

I&G S15: Big Data Applications (2)

N215 "Decision Support for Disability Employment using Counterfactual Survival Analysis"(Regular)	Ha Tran, Thuc Le, Jiuyong Li, Lin Liu, Jixue Liu, Yanchang Zhao, and Tony Waters
N238 "System and Method on Order Management Using Neural Networks and Risk Modeling" (Regular)	Shubhi Asthana, Bing Zhang, Pawan Chowdhary, and Taiga Nakamura
N254 "Sensing Multi-modal Mobility Patterns: A Case Study of Helsinki using Bluetooth Beacons and a Mobile Application" (Regular)	Zhiren Huang, Alonso Espinosa, and Charalampos Sipetas
N225 "Similarity-based Historical Input Selection to Predict Irregular Holiday Traffics in Real-time"(Short)	Pooreumoe Kim, Jungsoo Park, Seungyoun Lee, and Jungmin Kim
N228 "The Future of Extreme Weather Events - Advanced Machine Learning and Artificial Intelligence for Democratic Institution preparedness and enhanced National Food Security!"	Chandrasekar Vuppalapati, Anitha Ilapakurti, Sharat Kedari, Jaya Shankar Vuppalapati, and Santosh Kedari
N264 "Implementation of Empath X SLA predictive tool for a Government Agency"(Short)	Alvina Hui Shan Lee, Venky Shankararaman, and Eng Lieh Ouh
I&G S16: Big Data Analysis (4)	
N295 "Flexible Partitioning of Geographical Information based on GPS Coordinates for k-Anonymity"(Regular)	Liu Yuxin and Kazuhiro Minami
N258 "A practical facility location optimization with uncertain variables in emergency road services"(Regular)	Shogo Takedomi and Tsukasa Ishigaki
N276 "Matching Attacks on Non-deterministic Algorithms for Cell Suppression Problem for Tabular Data"(Short)	Yutaka Abe and Kazuhiro Minami
N245 "Explainable Machine Learning Models for Evaluating Government Grantmaking"(Short)	Daniel Fonner and Frank Coyle
N259 "Energy-based Domain Adaption with Active Learning for Emerging Misinformation Detection"(Poster)	Kyumin Lee, Guanyi Mou, and Scott Sievert
N248 "Analysis and Estimation of News Article Reading Time with Multimodal Machine Learning"(Poster)	Shotaro Ishihara and Yasufumi Nakama

Workshops: Copy the table below

Time	Title	Presenter/Author
10:00 – 10:30	**Coffee Break**	
12:30 – 14:00	**Lunch Break**	

16:20 –	**Coffee Break**	
	Closing Remarks	

Special Sessions

5th Special Session on HealthCare Data <mark>(ONLINE)</mark>

Day 1: Saturday, December 17, 2022		
Time	**Title**	**Presenter/Author**
14:00-14:10	**Session Opening**	
14:10-14:30	SP01201 - Evolving Perceptions of Mental Health on Social Media and their Medical Impacts	Kenna Reagan, Aparna Varde, and Lei Xie
14:30-14:50	SP01204 - DPPIN: A Biological Repository of Dynamic Protein-Protein Interaction Network Data	Dongqi Fu and Jingrui He
14:50-15:10	SP01205 - Is Unimodal Bias Always Bad for Visual Question Answering? A Medical Domain Study with Dynamic Attention	Zhongtian Sun, Anoushka Harit, Alexandra I. Cristea, Jialin Yu, Noura Al Moubayed, and Lei Shi
15:10-15:30	SP01206 - Deep Pneumonia: Attention-Based Contrastive Learning for Class-Imbalanced Pneumonia Lesion Recognition in Chest X-rays	Xinxu Wei, Xiangke Niu, Xianshi Zhang, and Yongjie Li
15:30-15:50	SP01208 - Deep Reinforcement Learning for Bandit Arm Localization	Wenbin Du, Huaqing Jin, Chao Yu, and Guosheng Yin
15:50-16:10	SP01209 - Explainability Using SHAP for Epileptic Seizure Recognition	Simone Ludwig
16:10-16:20	**Break**	
16:20-16:40	SP01211 - Semantic Dietary Personalization for Chronic Disease Management	Changhyub Woo, Byunghyun Kim, Jaehun Lee, Buhwan Jeong, Jinwoo Song, Carlo Allocca, and Rohit Ail

Time	Title	Presenter/Author
16:40-17:00	SP01212 - Prototyping the Problem Oriented Medical Record for Connected Health Based on TypeGraphQL	Sabah Mohammed, Jinan Fiaidhi, and Darien Sawyer
17:00-17:20	SP01213 - Thick Data Techniques for Identifying Abnormality in Video Frames for Wireless Capsule Endoscopy	Jinan Fiaidhi, Sabah Mohammed, and Petros Zezos
17:20-17:40	SP012014 - Predicting Taxonomic Identity and Genetic Composition of Codon Usage Bias Levels Using Deep Learning Models	Lennart Buhl and Sayantica Pattanayak
17:40-18:00	SP01215 - DeePaGait: Motor Assessment of Parkinson's Disease Using a Multi-Layer 1D Convolutional Neural Network on Smartphone Gait Data	Hamza Abujrida, Emmanuel Agu, and Kaveh Pahlavan
18:00-18:20	SP01216 - Explainable Prediction of the Severity of COVID-19 Outbreak for US Counties	Shailik Sarkar, Abdulaziz Alhamadani, and Chang-Tien Lu
18:20-18:30	Session Closing	
Day 2: Sunday, December 18, 2022		
Time	**Title**	**Presenter/Author**
14:00-14:10	Session Opening	
14:10-14:30	SP012017 - Building a Patient-Centered Virtual Hospital Ecosystem Using Both Access Control and CNN-Based Models	Sara A. Alsalamah, Shada AlSalamah, Walaa N. Ismail, Hessah Alsalamah, and Chang-Tien Lu
14:30-14:50	SP01218 - Anonymizing Periodical Releases of SRS Data by Fusinging Differential Privacy	Yi-Yuang Wu, Zhi-Xun Shen, and Wen-Yang Lin
14:50-15:10	SP01219 - HAR-CTGAN: A Mobile Sensor Data Generation Tool for Human Activity Recognition	Joshua DeOliveira, Walter Gerych, Aruzhan Koshkarova, Elke Rundensteiner, and Emmanuel Agu
15:10-15:30	SP01220 - Deep Video Action Recognition Models for Assessing Cardiac Function from Echocardiograms	Abdulsalam Almadani, Abhishek Shivdeo, Emmanuel Agu, and Jacques Kpodonu
15:30-15:50	SP01221 - Oversampling techniques for predicting COVID-19 patient length of stay	Zachariah Farahany, Jiawei Wu, K M Sajjadul Islam, and Praveen Madiraju
15:50-16:10	SP01222 - LSTM-based Pulmonary Air Leak Forecasting for Chest Tube Management	Roberto Corizzo, Rodrigo Yepez-Lopez, Sebastien Gilbert, and Nathalie Japkowicz
16:10-16:20	Break	
16:20-16:40	SP01223 - CCS Explorer: Relevance Prediction, Extractive Summarization, and Named Entity Recognition from Clinical Cohort Studies	Irfan Al-Hussaini, Davi Nakajima An, Albert J. Lee, Sarah Bi, and Cassie S. Mitchell
16:40-17:00	SP01224 - Typhon: Parallel Transfer on Heterogeneous Datasets for Cancer Detection in Computer-Aided Diagnosis	Giuseppe Cuccu, Christophe Broillet, Carolin Reischauer, Harriet Thoeny, and Philippe Cudre-Mauroux

Time	Title	Presenter/Author
17:00-17:20	SP01225 - Data-Driven Estimation of Effectiveness of COVID-19 Non-pharmaceutical Intervention Policies	yash mahajan, Sheikh Rabiul Islam, Mohammad Ruhul Amin, and Shubhra (``Santu'') Karmaker
17:20-17:40	SP01226 - DOD-Explainer: Explainable Drug Overdose Deaths Predictor from Crime and Socioeconomic Data	Abdulaziz Alhamadani, Shailik Sarkar, Lulwah Alkulaib, and Chang-Tien Lu
17:40-18:00	BigD314 - Swin-TCNet: A vision transformer-based method for automated chromosomal object detection	Chih-En Kuo, Chien-Hsing Lu, and Li-Yuan Huang
18:00-18:20	BigD408 - A Novel Contrast Enhancement Technique for Diabetic Retinal Image Pre-Processing and Classification	Huma Naz, Rahul Nijhwan, and Neelu Jyothi Ahuja
18:20-18:30	*Session Closing*	
Day 3: Monday, December 19, 2022		
Time	**Title**	**Presenter/Author**
14:00-14:10	*Session Opening*	
14:10-14:30	BigD549 - Preserving Cluster Features in Imputing High Dimensional Data with Extensive Missing Rate	Chih Lai, Carolin Poschen, Lisa Steinheuer, and Jorg Hackermuller
14:30-14:50	BigD593 - An Automatic Sleep Arousal Detection Method by Enhancing U-Net with Spatial-channel Attention	Yen-Ning Su and Chih-En Kuo
14:50-15:10	BigD691 - Pseudo slicer on three dimensional brain tumor segmentation	Mohammad Iqbal, Fitria Urbach, Hsing-Kuo Pao, Anggraini Dwi Sensusiati, Nurul Hidayat, and Imam Mukhlash
15:10-15:30	BigD705 - Evaluating COVID-19 Sequence Data Using Nearest-Neighbors Based Network Model	Sarwan Ali
15:30-15:50	BigD779 - VF2VF: Improving Precision while Maintaining Accuracy	Zhenyu Zhang and Haogang Zhu
15:50-16:00	*Session Closing*	

2022 Special Session on Machine Learning on Big Data

Time	Title	Presenter/Author
Day 1: Monday, December 19, 2022 - ONSITE		
Time	**Title**	**Presenter/Author**
10:00 – 10:30	**Coffee Break**	
10:30-10:50	**SP02203** Multi-class Skin Cancer Classification Architecture Based on Deep Convolutional Neural Network	Mst Shapna Akter, Hossain Shahriar, Sweta Sneha, Alfredo Cuzzocrea, and Carson K. Leung
10:50-11:10	**SP02205** DVGAN: Stabilize Wasserstein GAN training for time-domain Gravitational Wave physics	Tom Dooney, Stefano Bromuri, and Lyana Curier

Time	Title	Presenter/Author
11:10-11:30	**SP02208** Causal Discovery for Feature Selection in Physical Process-Based Hydrological Systems	Paras Sheth, Ting Liu, Durmus Doner, Yuhang Wei, Qi Deng, Rebecca Muenich, John Sabo, K. Selcuk Candan, and Huan Liu
11:30-11:50	**SP02209** STCD: A Spatio-Temporal Causal Discovery Framework for Hydrological Systems	Paras Sheth, Reepal Shah, John Sabo, K. Selcuk Candan, and Huan Liu
11:50-12:10	**SP02211** GAPS: Generality and Precision with Shapley Attribution	Brian Daley, Qudrat Ratul, Edoardo Serra, and Alfredo Cuzzocrea
12:10-12:30		
12:10-12:30	**SP02218** Handwritten Word Recognition using Deep Learning Approach: A Novel Way of Generating Handwritten Words	Mst Shapna Akter, Hossain Shahriar, and Alfredo Cuzzocrea
12:30 – 14:00	**Lunch Break**	
14:00-14:20	**SP02221** Learning Latent Road Correlations from Trajectories	Zheng Dong, Quanjun Chen, Renhe Jiang, Huanchen Wang, Xuan Song, and Hao Tian
14:20-14:40	**SP02222** A Crowd Source System for Big Data Analytics for YouTube	Jagan Mohan Reddy Danda, Abhishek Attuluri, Hossain Shahriar, Alfredo Cuzzocrea, and Nazmus Sakib
14:40-15:00	**SP02223** An Empirical Study of Domain Adaptation: Are We Really Learning Transferable Representations?	Nicholas Josselyn, Biao Yin, Ziming Zhang, and Elke Rundensteiner
15:00-15:20	**N237** Efficient Comprehensive Element Identification in Large Scale Spectral Analysis with Interpretable	Xiang Xie and Wilhelm Stork
15:20-15:40	**BigD306** OSP-Class: Open Set Pseudo-labeling with Noise Robust Training for Text Classification	Dohyung Kim, Jahwan Koo, and Ung-Mo Kim
15:40-16:00	**BigD555** Badminton stroke classification based on accelerometer data: from individual to generalized models	Daniel Peralta, Ben Van Herbruggen, Jaron Fontaine, Wout Debyser, Jorg Wieme, and Eli De Poorter
16:00 – 16:30	**Coffee Break**	
Day 1: Monday, December 19, 2022 - ONLINE		
Time	**Title**	**Presenter/Author**
16:30-16:50	**SP02206** Graph Clustering using Node Embeddings: An Empirical Study [Short Paper]	Mahdi Ghanbari and Mostafa Haghir Chehreghani
16:50-17:10	**SP02207** Autonomous Drug Design with Multi-armed Bandits	Hampus Gummesson Svensson, Esben Bjerrum, Christian Tyrchan, Ola Engkvist, and Morteza Haghir
17:10-17:30	**SP02210** Distributional Shift Adaptation using Domain-Specific Features	Anique Tahir, Lu Cheng, Ruocheng Guo, and Huan Liu
17:30-17:50	**SP02216** A Novel Machine Learning Based Framework for Bridge Condition Analysis	Mohammad Masum, Nafisa Anjum, Hossain Shahriar, Nazmus Sakib, Maria

Time	Title	Presenter/Author
		Valero, M.A. Karim, Akond Rahman, Fan Wu, and Alfredo Cuzzocrea
17:50-18:10	**SP02220** Multi-criteria Rating and Review based Recommendation Model	Emrul Hasan, Chen Ding, and Alfredo Cuzzocrea
18:10-18:30	**SP02224** Distributed Heterogeneous Transfer Learning for Link Prediction in the Positive Unlabeled Setting	Paolo Mignone, Gianvito Pio, and Michelangelo Ceci
18:30-18:50	**SP02225** Deep Federated Anomaly Detection for Multivariate Time Series Data	Wei Zhu, Dongjin Song, Yuncong Chen, Wei Cheng, Bo Zong, Takehiko Mizoguchi, Cristian Lumezanu, Haifeng Chen, and Jiebo Luo
Day 2: Tuesday, December 20, 2022 - ONSITE		
10:00 – 10:30	**Coffee Break**	
10:30-10:50	**BigD560** Density-Based Prototypical Contrastive Learning on Visual Representations	Yueh-Lin Chung and Hsing-Kuo Pao
10:50-11:10	**BigD664** Variational Factorization Machines for Preference Elicitation in Large-Scale Recommender Systems	Jill-Jenn Vie, Tomas Rigaux, and Hisashi Kashima
11:10-11:30	**BigD698** HITS-GNN: A Simplified Propagation Scheme for Graph Neural Networks	Mehak Khan, Gustavo B. M. Mello, Paal Engelstad, Laurence Habib, and Anis Yazidi
11:30-11:50	**BigD729** Augmentation in the Embedding space for Contrastive Representation Distillation	Yi-Chieh Cheng and Hsing-Kuo Pao
11:50-12:10	**BigD836** Federated Learning for Autoencoder-based Condition Monitoring in the Industrial Internet of Things	Soeren Becker, Kevin Styp-Rekowski, Oliver Vincent Leon Stoll, and Odej Kao
12:10-12:30	**BigD844** AsyncFLEO: Asynchronous Federated Learning for LEO Satellite Constellations with High-Altitude-Platforms	Mohamed Elmahallawy, and Tony T. Luo
12:30 – 14:00	**Lunch Break**	
Day 2: Tuesday, December 20, 2022 - ONLINE		
Time	**Title**	**Presenter/Author**
16:30-16:50	**SP02226** Leveraging Knowledge Graph Embeddings to Disambiguate Author Names in Scientific Data	Laura Rettig, Kurt Baumann, Sebastian Sigloch, and Philippe Cudré-Mauroux
16:50-17:10	**SP02230** On Designing Day Ahead and Same Day Ridership Level Prediction Models for City-Scale Transit Networks Using Noisy APC Data	Jose Paolo Talusan, Ayan Mukhopadhyay, Dan Freudberg, and Abhishek Dubey
17:10-17:30	**BigD446** More is Less - Byte-quantized models are faster than bit-quantized models on the edge	Pengfei Zhang, Chenxia Han, and Eric Lo
17:30-17:50	**BigD495** Stable Topological Feature Vectors via Hermite Function Expansion on Persistence Curves	Yu-Min Chung
17:50-18:10	**BigD545** Scalable Learning with Incremental Probabilistic PCA	Boshi Wang and Adrian Barbu
18:10-18:30	**BigD748** Analysing Longitudinal Social Science Questionnaires: Topic modelling with BERT-based Embeddings	Vida Sharifian-Attar, Suparna De, Sanaz Jabbari, Jenny Li, Harry Moss, and Jon Johnson

18:30-18:50	**SP02214** Landslide Likelihood Prediction using Machine Learning Algorithms	Vasundhara Acharya, Anindita Ghosh, Inwon Kang, Thilanka Munasinghe, and Binita KC

2022 Special Session on Privacy and Security of Big Data

Day 1: Monday, December 19, 2022 - ONSITE		
Time	**Title**	**Presenter/Author**
10:00 – 10:30	Coffee Break	
10:30-10:50	**SP03201** Homomorphic Encryption-Friendly Privacy-Preserving Partitioning Algorithm for Differential Privacy	Shojiro Ushiyama, Tsubasa Takahashi, Masashi Kudo, and Hayato Yamana
10:50-11:10	**SP03202** Anomaly Detection in Cybersecurity Events a Through Graph Neural Network and Transformer Based Model: A Case Study with BETH Dataset	Bishal Lakha, Sara Mount, Edoardo Serra, and Alfredo Cuzzocrea
11:10-11:30	**SP03203** Adaptive Attacks and Targeted Fingerprinting of Relational Data	Tanja Sarcevic, Rudolf Mayer, and Andreas Rauber
11:30-11:50	**SP03204** Efficient Bayesian Network Construction for Increased Privacy on Synthetic Data	Markus Hittmeir, Rudolf Mayer, and Andreas Ekelhart
11:50-12:10	**SP03209** An efficient approach for anonymising heterogeneous graph structures	Guillermo Alaman Requena, Andreas Ekelhart, and Rudolf Mayer
12:10-12:30	**SP03210** Deep Learning Approach for Classifying the Aggressive Comments on Social Media: Machine Translated Data	Mst Shapna Akter, Hossain Shahriar, and Alfredo Cuzzocrea
12:10-12:30	**BigD725** An Unified Noise and Watermark Removal from Information Bottleneck-based Modeling	Han-Juan Huang, Sheng-Wen Chen, and Hsing-Kuo Pao
12:30 – 14:00	Lunch Break	
14:00-14:20	**BigD727** Differential Privacy-inspired Federated Split Learning for Anomaly Detection	Chi-Chen Liao and Hsing-Kuo Pao
14:20-14:40	**BigD764** Mixers Detection in bitcoin network: a step towards detecting money laundering in crypto-currencies	Muhammad Mazhar Ullah Rathore, Sushil Chaurasia, and Dhirendra Shukla
14:40-15:00	**BigD827** Permutation-Invariant Tabular Data Synthesis	Yujin Zhu, Zilong Zhao, Robert Birke, and Lydia Y. Chen
15:00-15:20	**BigD839** A Crypto-Assisted Approach for Publishing Graph Statistics with Node Local Differential Privacy	Shang Liu, Yang Cao, Takao Murakami, and Masatoshi Yoshikawa
15:20-15:40		
15:40-16:00		
16:00 – 16:30	Coffee Break	
Day 1: Monday, December 19, 2022 - ONLINE		
Time	**Title**	**Presenter/Author**

Time	Title	Presenter/Author
16:30-16:50	**SP03206** Software Supply Chain Vulnerabilities Detection in Source Code: Performance Comparison between Traditional and Quantum Machine Learning Algorithms	Mst Shapna Akter, MD Jobair Hossain Faruk, Nafisa Anjum, Mohammad Masum, Hossain Shahriar, Nazmus Sakib, Maria Valero, Akond Rahman, Fan Wu, and Alfredo Cuzzocrea
16:50-17:10	**SP03207** Authentic Learning of Machine Learning in Cybersecurity with Portable Hands-on Labware: Neural Network Algorithms for Network Denial of Service (DOS) Detection	MD Jobair Hossain Faruk, Hossain Shahriar, Kai Qian, Dan Lo, Michael Whitman, Alfredo Cuzzocrea, and Fan Wu
17:10-17:30	**SP03208** Predicting and Analyzing Privacy Settings and Categories for Posts on Social Media	Hsin-Yu Chen and Cheng-Te Li
17:30-17:50	**SP03211** Explaining IoT Attacks: An Effective and Efficient Semi-Supervised Learning Framework	Giuseppe Cascavilla, Reinier Zwart, Damian Tamburri, and Alfredo Cuzzocrea
17:50-18:10	**SP03212** Privacy and security of mobile users in smart cities: an overview	Sabrina Ichou, Slimane Hammoudi, Amel Benna, Abdelkrim Meziane, and Alfredo Cuzzocrea
18:10-18:30	**SP03213** On using Node Indices and Their Correlations for Fake Account Detection	Sara Asghari and Mostafa Haghir Chehreghani
18:30-18:50	**N294** HateNet: A Graph Convolutional Network Approach to Hate Speech Detection	Charles Duong, Lei Zhang, and Chang-Tien Lu
Day 2: Tuesday, December 20, 2022 - ONLINE		
Time	**Title**	**Presenter/Author**
10:00 – 10:30	**Coffee Break**	
10:30-10:50		
10:50-11:10	**BigD265** Differentially Private Federated Continual Learning with Heterogeneous Cohort Privacy	Ajesh Koyatan Chathoth, Clark P Necciai Jr, Abhyuday Jagannatha, and Stephen Lee
11:10-11:30	**BigD322** Exploring the Generalisability of Fake News Detection Models	Nathaniel Hoy and Theodora Koulouri
11:30-11:50	**BigD361** One Stone, Three Birds: Finer-Grained Encryption with Apache Parquet @ Large Scale	Xinli. Shang, Pavi Subenderan, Mohammad Islam, and Jianchun Xu
11:50-12:10	**BigD386** Twitter Bot Detection Through Unsupervised Machine Learning	Jeremy Wu, Eric Teng, and Ziyue Cao
12:10-12:30	**BigD510** Diseases Prediction from Officially Anonymized Medical and Healthcare Big Data	Hiroaki Kikuchi, Satoshi Ito, Kazuki Ikegami, and Shota Shindo
12:30 – 14:00	**Lunch Break**	
16:30-16:50	**BigD544** Efficient Inference on Convolutional Neural Networks by Image Difficulty Prediction	Yu-Jen Chang, Ding-Yong Hong, Pangfeng Liu, and Jan-Jan Wu
16:50-17:10	**BigD623** Federated XGBoost on Sample-Wise Non-IID Data	Katelinh Jones, Yuya Ong, Yi Zhou, and Nathalie Baracaldo
17:10-17:30	**BigD631** Low-rank Defenses Against Adversarial Attacks in Recommender Systems	Negin Entezari and Evangelos Papalexakis

17:30-17:50	**BigD708** A Novel Video Copy Subsequence Detection and Location Method	Xie Yuxiang, Yan Jie, Luan Xidao, Zhang Lili, Zhao Yancheng, and Wei Yingmei
17:50-18:10	**BigD722** Federated Local Differential Privacy for Recommender Systems	Manoj Reddy Dareddy and Junghoo Cho
18:10-18:30	**BigD744** Analyzing and Defending against Membership Inference Attacks in Natural Language Processing	Yijue Wang, Nuo Xu, Shaoyi Huang, Kaleel Mahmood, Dan Guo, Caiwen Ding, Wujie Wen, and Sanguthevar Rajasekaran
18:30-18:50	**BigD757** Robust Stochastic Bandit algorithms to defend against Oracle attack using Sample Dropout	Jayanth Yetukuri and Yang Liu

8th Special Session on Intelligent Data Mining <mark>(ONLINE)</mark>

Day 1: Saturday, December 17, 2022		
Time	**Title**	**Presenter/Author**
8:00-8:15	Multimodal Road Sign Interpretation for Autonomous Vehicles	Joshua Lampkins, Darren Chan, Alan Perry, Sasha Strelnikoff, Jiejun Xu, and Alireza Esna Ashari
8:15-8:30	The Dynamics of Ukraine-Russian Conflict through the Lens of Demographically Diverse Twitter Data	Salim Sazzed
8:30-8:45	Non-uniform Sampling Methods for Large Itemset Mining	Zahra Moteshaker Arani and Mostafa Haghir Chehreghani
8:45-9:00	Model-free feature selection to facilitate automatic discovery of divergent subgroups in tabular data	Girmaw Abebe Tadesse, William Ogallo, Celia Cintas, and Skyler Speakman
9:00-9:15	Inferring Phylogenetic Relationships using the Smith-Waterman Algorithm and Hierarchical Clustering	Anthony DeVito, Rafael Hidalgo, Nesreen Salah, Aparna Varde, and Robert Meredith
9:15-9:30	Detecting Dangerous Maritime Refugee Migration Paths through Cell Phone Activities	Semih Yumusak, Mustafa Coban, Yasin Yilmaz, and Hüseyin Oktay Altun
9:30-9:45	Traffic Congestion Prediction Using Toll and Route Search Log Data	Yuto Kosugi, Itsuki Matsunaga, Hangli Ge, Takashi Michikata, and Noboru Koshizuka
9:45-10:00	Crosslingual Section Title Alignment in Wikipedia	Djellel Difallah, Diego Saez-Trumper, Eriq Augustine, Robert West, and Leila Zia
10:00-10:15	ParaGraph: Mapping Wikidata Tail Entities to Wikipedia Paragraphs	Natalia Ostapuk, Djellel Difallah, and Philippe Cudre-Mauroux

10:15-10:30	Towards automating Numerical Consistency Checks in Financial Reports	Lars Hillebrand, Tobias Deußer, Tim Dilmaghani, Bernd Kliem, Rüdiger Loitz, Christian Bauckhage, and Rafet Sifa
10:30-10:45	A Big Data Application in Manufacturing Industry-Computer Vision to Detect Defects on Bearings	Perin Ünal, Özlem Albayrak, Meerim Kubatova, Bilgin U. Deveci, Ege Çırakman, İpek Koçal, and A. Murat Özbayoğlu
10:45-11:00	Multi-Component Optimization of Neural-Networks for IoT Devices	Bharath Sudharsan, Piyush Yadav, DineshKumar Sundaram, Pankesh Patel, John G Breslin, Muhammad Intizar Ali, Schahram Dustdar, Albert Zomaya, and Rajiv Ranjan
11:00-11:15	How to Prepare for the Next Pandemic – Investigation of Correlation Between Food Prices and COVID-19 From Global and Local Perspectives	Yufei Zhao, Chao Huang, and Jiebo Luo
11:15-11:30	Imbalanced Multi-layer Cloud Classification with Advanced Baseline Imager (ABI) and CloudSat/CALIPSO Data	Leah Ding, Roberto Corizzo, Colin Bellinger, Nancy Ching, Spencer Login, Rodrigo Yepez-Lopez, Jie Gong, and Dong L. Wu
11:30-11:45	Improving the co-training algorithm to enhance semi-supervised learning results	Ragini Kihlman and Maria Fasli
11:45-12:00	Doctors vs. Nurses: Understanding the Great Divide in Vaccine Hesitancy among Healthcare Workers	Sajid Hussain Rafi Ahamed, Shahid Shakil, Hanjia Lyu, Xinping Zhang, and Jiebo Luo
12:00-12:15	Signed Ego Network Model and its Application to Twitter	Jack Tacchi, Chiara Boldrini, Andrea Passarella, and Marco Conti
12:15-12:30	Academic Graph: A Literature Review System	Mustafa Çataltaş, Semih Yumusak, and Kasim Oztoprak
12:30-12:45	Control System Design and Implementation Based on Big Data and Ontology	Seyithan Temel, Emre Ummak, Abdülkadir Tokgöz, Furkan Işık, Özlem Albayrak, Perin Ünal, and Murat Özbayoğlu
12:45-13:00	A Context-Aware based Method for Indexing Large-Scale SpatioTemporal Data	Ruijie Tian, Fei Wang, Weishi Zhang, Junting Xiong, Huawei Zhai, and Jiexuan Du
13:00-13:15	Semantic Similarity Analysis between Future Topics and Their Neighbors in Topic Networks for Network-based Topic Evolution	Sukhwan Jung and Aviv Segev
13:15-13:30	NOMABER: A NOVEL FRAMEWORK FOR MULTI-TYPE ABNORMAL BEHAVIOR RECOGNITION	Ao Wang, Yongchen Yao, Yuhan Yao, and Jinpeng Chen
13:30-13:45	**Break**	

13:45-14:00	A Real-time, Scalable Monitoring and User Analytics Solution for Microservices-based Software Applications	Cathy Zhang and M Omair Shafiq
14:00-14:15	Text and Type Augmented Contrastive Representation Learning for Knowledge Graph Completion	Chao Wang, Faguo Zhou, Dongxue Sun, Yanan Song, Zhuanghao Cheng, Xueqiang Xu, and Junbin Liao
14:15-14:30	LAMPT: LAbel Mask-Predict Transformer for Extreme Multi-label Text Classification	Yifan Xu, Minghao Zhu, Junli Wang, and Chungang Yan
14:30-14:45	Emotion Recognition on StackOverflow Posts Using Bert	Donald Bleyl and Elham Buxton
14:45-15:00	AutoDPQ: Automated Differentiable Product Quantization Embedding Compression Framework	Xin Gan and Xiangyu Zhao
15:00-15:15	Implementation of Customized Promotion Scheme for The Retail Industry Using Machine Learning Techniques	Thisal Avishka Wijayasekara and P P G Dinesh Asanka
15:15-15:30	Personalized Content Based Package Recommendation Model for a Telecommunication Company Using Machine Learning	Nayushani Dambure Liyanage and P P G Dinesh Asanka
15:30-15:45	An Approximation Method for Querying Similar Large Graphs	Zhou Huang and Feng Zhou
15:45-16:00	Big data analysis reveals an emerging change in academia-industry collaborations in the era of digital convergence	Tomomi Yamazaki, Takahiro Miura, and Ichiro Sakata
16:00-16:15	Attending to Entity Class Attributes for Named Entity Recognition with Few-Shot Learning	Raj Nath Patel, Sourav Dutta, and Haytham Assem
16:15-16:30	3D-STGPCN: 3D Spatio-Temporal Graph Point-wise Convolutional Network for Traffic Forecasting	Manh-Phu Nguyen, Minh-Son Dao, and Thanh-Binh Nguyen
16:30-16:45	An AutoEncoder-based Numerical Tabular Data Augmentation	Jueun Jeong, Hanseok Jeong, and Hanjoon Kim
16:45-17:00	Efficient Data Analytics on Augmented Similarity Triplets	Sarwan Ali, Muhammad Ahmad, Umair ul Hassan, Muhammad Asad Khan, Shafiq Alam, and Imdadullah Khan
17:00-17:15	ASRC:A Knowledge Graph Relation Construction Model based on Active Learning and Semantic Recognition	Lizhuang Sun, Wenhui Hu, Kehui Xu, Yuhang Chen, Qidong Sun, and Jiaxi Wang
17:15-17:30	A Transformer-based Model on Tour Recommendation Problem using POIBERT	Ngai Lam Ho and Kwan Hui Lim
17:30-17:45	SplitDyn: Federated Split Neural Network for Distributed Edge AI Applications	Khoa Anh Tran, Do-Van Nguyen, Minh-Son Dao, and Koji Zettsu
17:45-18:00	A method for improving text classification tasks based on knowledge graphs for limited labeled data	Hongzhi Zhang and M. Omair Shafiq
18:00-18:15	Modeling user behavior dynamics on Social Media	Heba Zahran and Omair Shafiq
18:15-18:30	Impact Of Missing Data Imputation On The Fairness And Accuracy Of Graph Node Classifiers	Haris Mansoor, Sarwan Ali, Shafiq Alam, Muhammad Asad Khan, Umair ul Hassan, and Imdadullah Khan

Time	Title	Presenter/Author
18:30-18:45	Neuron-based Pruning of Deep Neural Networks with Better Generalization using Kronecker Factored Curvature Approximation	Abdolghani Ebrahimi and Diego Klabjan
18:45-19:00	Dot-Product Similarity based Centroid Clustering for Popular Topic Detection	Jenq-Haur Wang and Tzong-Ting Hsieh

8th Special Session on Information Granulation in Data Science and Scalable Computing (PART 1 ONLINE, PART 2 ONSITE)

Day 1: Saturday, December 17, 2022 - ONLINE		
Time	Title	Presenter/Author
16:00-16:20	Accelerating concept-dependent granulation technique using data decomposition	Radoslaw Cybulski and Piotr Artiemjew
16:20-16:40	Tensor-based Approach to Big Data Processing and Machine Learning	Maciej Bartoszuk, Jaroslaw Litwin, Mateusz Wnuk, and Dominik Slezak
16:40-17:00	Targeted Mining of Rare High-utility Patterns	Peifeng Zhang, Jiahui Chen, Shicheng Wan, and Wensheng Gan
17:00-17:20	Flexibly Mining Better Patterns	Gengsen Huang, Wensheng Gan, Long Li, and Tianlong Gu
17:20-17:40	Pattern Discovery with Utility Occupancy	Jiayi Sun, Wensheng Gan, Jerry Chun-Wei Lin, and Han-Chieh Chao
17:40-18:00	Dataset Generation Framework for Evaluation of IoT Linux Host-Based Intrusion Detection Systems	Blazej Adamczyk, Maksym Brzeczek, Marcin Michalak, Iwona Kostorz, Lukasz Wawrowski, Marek Hermansa, Michal Czerwinski, and Antoni Jamiolkowski
18:00-18:20	Incremental Fuzzy Utility Mining with Tree Structure	Tzung-Pei Hong, Wei-Teng Hung, Wei-Ming Huang, and Yu-Chuan Tsai
18:20-18:40	Unified Temporal Erasable Itemset Mining with a Lower-Bound Strategy	Tzung-Pei Hong, Jia-Xiang Li, Yu-Chuan Tsai, and Wei-Ming Huang
18:40-19:00	Large Scale Windowed Matching	Mateusz Przyborowski, Krzysztof Ciebiera, and Krzysztof Stencel
Day 2: Sunday, December 18, 2022 - ONSITE		
16:20-16:40	EVEAL - Expected Variance Estimation for Active Learning	Daniel Kaluza, Andrzej Janusz, and Dominik Slezak
16:40-17:00	Adversarial Robustness of Uncertainty-Aware Deep Learning Decision-Making Systems	Lukasz Grad
17:00-17:20	Similarity Analysis of Order Trajectory for Hospital Management	Tomohiro Kimura, Shusaku Tsumoto, and Shoji Hirano
17:20-17:40	Patients' Movement Analysis using Hospital Information System	Tomohiro Kimura, Shusaku Tsumoto, and Shoji Hirano
17:40-18:00	Approximation of the expectation-maximization algorithm for Gaussian mixture models on big data	Mateusz Przyborowski and Dominik Slezak

18:00-18:20	Data management in training AI chatbot with personality based on granular computing	Piotr Podolski, Tomasz Ludziejewski, and Hung Son Nguyen

Special Session on Platform for DFFT (Data Free Flow with Trust) <mark>(ONSITE)</mark>

WorkshopChairs: Noboru Koshizuka, noboru@koshizuka-lab.org		
Time	**Title**	**Presenter/Author**
14:00~14:05	**Opening Remarks**	
14:05~14:25	SP06201: "Toward High-Resolution Regional Atmospheric Reanalysis for Japan: An Overview of the ClimCORE Project"	Hisashi Nakamura, Kenichi Kuma, Kazutoshi Onogi, Takafumi Miyasaka, Yasutaka Makihara, Junichi Ishida, and Makoto Iida
14:25~14:45	SP06202: "DATA-EX: Infrastructure for Cross-Domain Data Exchange Based on Federated Architecture"	Noboru Koshizuka and Hiroshi Mano
14:45~15:05	SP06203: "Data Leaves as Scenario-oriented Metadata for Data-driven Innovation on Trust"	Yukio Ohsawa, Kaira Sekiguchi, Tomohide Maekawa, Hiroki Yamaguchi, Yeon Hyuk Son, and Sae Kondo
15:05~15:25	SP06204: "Design for Data Structures : Data Unification and Federation with Wikibase"	Hiroki Uematsu, Phuc Nugyen, and Hideaki Takeda
15:25~15:45	BigD661: "The concept of data trading market with data usage rights and its approach to implement"	Hiroshi Mano and Keita Saito
15:45~15:55	Buffer time	
15:55~16:00	**Closing Remarks**	

Data-Driven Designation and Implementation of Automated Guided Vehicles <mark>(ONSITE)</mark>

WorkshopChairs: Jerry Chun-Wei Lin <jerrylin@ieee.org>		
Time	**Title**	**Presenter/Author**
10:30-10:50	SP09201: An Efficient and Secured Energy Management System for Automated Guided Vehicles	Jia-Hao Syu, Jerry ChunWei Lin, and Dariusz Mrozek
10:50-11:10	SP09202: Botnet Attack Intrusion Detection In IoT Enabled Automated Guided Vehicles	Sumaiya Shaikh, Ch. Rupa, Gautam Srivastava, and Thippa Reddy Gadekallu
11:10-11:30	SP09205: Double-Environmental Q-Learning for Energy Management System in Smart Grid	Jia-Hao Syu, Jerry ChunWei Lin, and Philip S. Yu
11:30-11:50	SP09207: General Concepts of a Simulation Method for Automated Guided Vehicle in Industry 4.0	Dariusz Marek, Piotr Biernacki, Jakub Szygula, and Adam Domanski
11:50-12:10	SP09208: Analysis of web-based geo-visualization methods applied for Automated Guided Vehicle using Satellite Navigation Systems	Jakub Szygula, Dariusz Marek, Adam Domanski, Lukasz Sobczak, and Piotr Pawlas

12:10-12:30	SP09209: Adaptive Data Forwarding for a Platoon based Vehicular Named Data Networking	Anu Kaushik, Deepanshu Garg, Anushka Nehra, Mohamed Baza, and Gautam Srivastava
	Lunch Break	
14:00-14:20	SP09210: Real-time testing of vision-based systems for AGVs with ArUco markers	Katarzyna Filus, Lukasz Sobczak, Joanna Domanska, Adam Domanski, and Rafal Cupek
14:20-14:40	SP09212: Communication between AGV and standalone station via EtherCAT using WiFi - proof of concept	Ireneusz Smolka, Jacek Stoj, Piotr Gaj, and Marcin Fojcik
14:40-15:00	SP09213: Neuro-heuristic pallet detection for AGV navigation	Katarzyna Prokop, Dawid Polap, and Gautam Srivastava
15:00-15:20	SP09215: Automated Guided Vehicles Challenges for Artificial Intelligence	Rafal Cupek, Jerry ChunWei Lin, and J. H. Syu
15:20-15:40	SP09216: Stream data clustering for engineering applications a use case of autonomous guided vehicles	Tomasz Steclik, Rafal Cupek, and Marek Drewniak
15:40-16:00	SP09217: The forecast of the AGV battery discharging via the machine learning methods	Olena Pavliuk, Tomasz Steclik, and Piotr Biernacki
	Closing Remarks	

Posters

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