

Conference Program

ICKG 2022 will take place from November 31 to December 1 (**Scheduled in Beijing/ Hong Kong Time**), 2022.

Important information for authors:

- each session has a session chair, includes several presentations, and runs for no more than three hours;
- each paper (full or short) is given 15 minutes for presentation (12 mins for presentation, 3 mins for Q/A);
- live presentation is preferred instead of video;
- each presenting author will share his/her presentation file during the Voov/Tencent meeting session, no need to submit the PPT file to the conference before the session;
- session chairs will monitor and coordinate the presentation times, and the Q/A process.

IEEE ICBK2022 Programme (Online)

November 30 – December 1, 2022

Scheduled in **Beijing/Hong Kong Time**

Sessions: ICKG2022-Session K1, K2, A1, A2

Meeting time: 2022/11/30 08:45-18:45 (GMT+08:00) Beijing Time

Period: 2022/11/30-2022/12/01 08:45-18:45

#Tencent Meeting ID: 798-6774-1193

#Tencent Meeting: <https://meeting.tencent.com/dm/G8QIhhhkYWJP>

Sessions: ICKG2022-Session B1, B2

Meeting time: 2022/11/30 08:45-18:45 (GMT+08:00) Beijing Time

Period: 2022/11/30-2022/12/01 08:00-18:45

#Tencent Meeting ID: 857-294-533

#Tencent Meeting: <https://meeting.tencent.com/dm/VMGBWev2OwXd>

Tips: you can participate in the online ICKG2022 conference as follows.

- 1) If you are not in China, please download the voov meeting software (International version of the Tencent meeting).

<https://voovmeeting.com/download-center.html?from=1002>

Otherwise, you can use the Tencent meeting software (Domestic version).

<https://meeting.tencent.com/download/>

- 2) After a simple registration (such as using your mobile phone number), please input the #Tencent Meeting ID mentioned for each session in the schedule, then you can enter the online meeting.

Day 1: November 30, 2022 (Beijing/Hong Kong Time)**Opening and Keynote Session K1 (09:00 – 11:30)**

09:00 – 09:30	Opening Session	Chair: Xindong Wu
09:30 – 10:30	Keynote Speech 1 (K1)	Approaches to Distributed RDF Data Management and SPARQL Processing (M. Tamer Özsu, University of Waterloo)

Parallel Session A1 (10:30 – 12:00, November 30 Beijing Time), Chair: **Nitesh Chawla** (Lei Li Candidate)**Machine Learning and Knowledge Graphs**

	Beijing/Hong Kong Time	PaperId	Author	Title
1	10:30-10:45	DM789	Soji Adeshina, Min Chen, Rizal Fathony, Jian Zhang, Muhyun Kim, Advitiya Vashist, Jenn Ng, Jia Chen, and George Karypis	Scalable Inductive Initialization for Heterogeneous Graph Neural Networks
2	10:45-11:00	DM545	Morteza Mohammady Gharasue and Fengjiao Wang	Progressive Feature Upgrade in Semi-supervised Learning on Tabular Domain
3	11:00-11:15	KG212	Irene Kilanioti and George Angelos Papadopoulos	An efficient storage scheme for Sustainable Development Goals data over distributed knowledge graph stores
4	11:15-11:30	KG217	Cihan Ulus, Zhiqiang Wang, Sheikh Muhammad Asher Iqbal, Salman Khan, and Xingquan Zhu	AstNB: Augmentation and Stacking Transfer Naïve Bayes Learning for SMS Spam Detection
5	11:30-11:45	DM1025	Hyung-Jin Yoon and Petros Voulgaris	Multi-time Predictions of Wildfire Grid Map using Remote Sensing Local

6	11:45-12:00	DM788	Tracey Etheridge, Guang Lu, and Janna Lipenkova	Distilling Business Value from COVID - 19 Public Media Dataset with Machine Learning and Natural Language Processing
---	-------------	-------	---	--

Parallel Session A2 (14:00 – 17:30, November 30) Afternoon, Chair: Kui Yu

Knowledge Graphs and NLP

	Beijing/Hong Kong Time	PaperId	Author	Title
1	14:00-14:15	DM673	Ruijun Sun, Zhi Li, Qi Liu, Zhefeng Wang, Xinyu Duan, Baoxing Huai, and Nicholas Jing Yuan	Multi-Sentence Matching via Exploiting List-level Semantics Expansion
2	14:15-14:30	KG210	Yuhang Ge and Xuegang Hu	Enhancing Graph Variational Autoencoder for Short Text Topic Modeling with Mutual Information Maximization
3	14:30-14:45	KG213	Meiling Li, Hezi Liu, Bin Wu, and Ting Bai	Language Style Matters: Personality Prediction from Textual Styles Learning
4	14:45-15:00	KG215	Gongqing Wu, Zhenya Lu, Zhuochun Miao, Xingrui Zhuo, and Zan Zhang	Label Enhanced Event Detection with Collective Knowledge and Heterogeneous Graph
5	15:15-15:30	KG216	Chenchen Sun, Xingrui Zhuo, Zhenya Lu, Chenyang Bu, and Gongqing Wu	Deep Semantic-Enhanced Event Detection via Symmetric Graph Convolutional Network
6	15:30-15:45	KG219	Xuexue Zang, Fei Xie, and Fuliang Weng	Foreign Accent Conversion using Concentrated Attention

Parallel Session B1 (10:30 – 12:15, November 30), Chair: Zeyi Sun

Machine Learning for Time Series and Visualization

	Beijing/Hong Kong Time	PaperId	Author	Title
1	10:30-10:45	DM276	Xiaohu Xie, Reza Madankan, and Kairui Wu	Inference Calibration of Neural Network Models
2	10:45-11:00	DM336	Anowarul Kabir and Amarda Shehu	Sequence-Structure Embeddings via Protein Language Models Improve on Prediction Tasks
3	11:00-11:15	DM377	Audrey Der, Chin-Chia Michael Yeh, Renjie Wu, Junpeng Wang, Yan Zheng, Zhongfang Zhuang, Liang Wang, Wei Zhang, and Eamonn Keogh	Matrix Profile XXVII: A Novel Distance Measure for Comparing Long Time Series
4	11:15-11:30	DM496	Alexander Becker and Thomas Liebig	Certified Data Removal in Sum-Product Networks
5	11:15-11:45	DM574	Georgios Mavroudeas, Malik Magdon-Ismail, Kristin Bennett, and Xiao Shou	HMM-Boost: Improved Time Series State Prediction Via Supervised Hidden Markov Models: Case Studies in Epileptic Seizure and Complex Care Management
6	11:45-12:00	DM838	Carina Newen and Emmanuel Muller	Unsupervised DeepView: Uncertainty Visualization of High Dimensional Data
7	12:00-12:15	DM392	Koichiro Yawata, Yoshihiro Osakabe, Takuya Okuyama, and Akinori Asahara	QUBO Decision Tree: Annealing Machine Extends Decision Tree Splitting

Parallel Session B2 (14:00 – 17:30, November 30) Afternoon, Chair: Peipei Li

Representation Learning, Semi-supervised Learning and Application

	Beijing/Hong Kong Time	PaperId	Author	Title
1	14:00-14:15	KG201	Nianshang Tian, Ming Wu, Jiqiong Jiang, and Jing Zhang	Learning from Crowds with Mutual Correction-Based Co-Training
2	14:15-14:30	KG202	Zhenyu Zhang, Lin Zhao, Dongyang Cai, Shuming Feng, Jiawei Miao, Haicheng Tao, and Jie Cao	Time Series Anomaly Detection for Smart Grids via Multiple Self-Supervised Tasks Learning
3	14:30-14:45	KG224	Yijun Wang and Kaibo Xu	Multi-Kernel-FM: A Multi-Embedding & Kernelization Factorization Machine Framework for CTR Prediction
4	14:45-15:00	DM341	Qizheng Pan, Ming Yan, Guoqi Li, Jianmin Li, Ying Ma	Self-Knowledge Distillation from Target-Embedding AutoEncoder for Multi-Label Classification
5	15:00-15:15	DM588	Hao Chen, Victor Sheng, Chenyang Bu, Shengwei Ji, Zan Zhang, and Xindong Wu	HUSS: A Heuristic Method for Understanding the Semantic Structure of Spreadsheets
6	15:15-15:30	DM646	Nannan Wu, Ning Zhang, Qingcheng Lu, Jie Zhang, Wenjun Wang, Ying Sun, and Siddharth Bhatia	Multiple anomaly alignments on network traffics

Day 2: December 1, 2022 (Beijing/Hong Kong Time)**Keynote Session K2 (09:00 – 12:00, December 1, 2022)** Chair: **Ronen Feldman** (Qing Li)**09:00 – 10:00****Keynote Speech 2
(K2)****Towards Natural User Interaction
(Yuanchun Shi, Tsinghua University)**Parallel Session A1 (10:00 – 12:00), Chair: **Ronen Feldman** (Peipei Li Candidate)**Reasoning with Knowledge Graphs, Domain Knowledge Graphs, Knowledge Graph Analytics and Applications**

	Beijing/Hong Kong Time	PaperId	Author	Title
1	10:00-10:15	KG203	Fausto Giunchiglia, Vincenzo Maltese, Amarsanaa Ganbold, and Alessio Zamboni	An architecture and a methodology enabling interoperability within and across Universities
2	10:15-10:30	KG205	Anahita Pakiman and Jochen Garcke	Graph Modeling in Computer Assisted Automotive Development
3	10:30-10:45	KG206	Akshay Shah, Bonaventure Molokwu, and Ziad Kobti	HTransE: Hybrid Translation-based Embedding for Knowledge Graphs
4	10:45-11:00	KG207	Franklin Abodo, Phillip Marvin, and Joanna Brown	Graph Reachability Pruning: Adaptive Data Reduction for Inexact Subgraph Matching
5	11:00-11:15	DM1000	Assma Boughoula, Kevin Ros, and ChengXiang Zhai	An optimization Approach to Automatic Construction of Browsable Concept Index for Organizing Online Educational Content
6	11:30-11:45	KG218	Pedro de Moraes Ligabue, Anarosa Alves Franco Brandão, Sarajane Marques Peres, Fabio Gagliardi Cozman, and Paulo Pirozelli	BlabKG: a Knowledge Graph for the Blue Amazon
7	11:45-12:00	KG222	Ahmed Abdeen Hamed, Jakub Jonczyk, Mohammad Zaiyan Alam, Ewa Deelman, and Byung Suk Lee	Mining Literature-Based Knowledge Graph for Predicting Combination Therapeutics: A COVID-19 Use Case

Parallel Session A2 (14:00 – 17:30, December 1, 2022) Afternoon, Chair: **Chenyang Bu (Peipei Li)**

Deep Learning and Application

	Beijing/Hong Kong Time	PaperId	Author	Title
1	14:00-14:15	DM1059	Xingtao Lin, Xiaogen Zhou, Xingqing Nie, Luoyan Wang, Zhiqiang Li, and Tong Tong	BSG-Net: A Blind Super-resolution Guided Network for Improving Ultrasound Image Segmentation
2	14:15-14:30	DM515	Wen Qin and Xin Luo	An Asynchronously Alternative Stochastic Gradient Descent Algorithm for Efficiently Parallel Latent Feature Analysis on Shared-Memory
3	14:30-14:45	DM204	Yan Li, Jin Liu, Jing Liu, Yingchun Guo, Youxi Wu	AOP-Miner: Approximate Order-Preserving Pattern Mining for Time Series
4	14:45-15:00	KG208	Zhiyuan Li, Zhou Jin, Rujing Wang, Jie Ji, and Haiyan Liu	A Generative Adversarial Net Assisted Method for User Intention Recognition on Imbalanced Dataset
5	15:00-15:15	KG209	Minghan Zhang, Fei Xie, and Fuliang Weng	Weighted Transformer for Dialect Speech Recognition
6	15:15-15:30	KG211	Jiaming Zhang and Hong Yu	Hierarchy-Aware Temporal Knowledge Graph Embedding

Parallel Session B1 (10:00 – 12:00, December 1, 2022), Chair: Ting Bai

Machine learning and NLP

	Beijing/Hong Kong Time	PaperId	Author	Title
1	10:00-10:15	DM274	Amit Dhurandhar and Tejaswini Pedapati	Multihop: Leveraging Complex Models to Learn Accurate Simple Models
2	10:15-10:30	DM514	Tsai Hor Chan, Chi Ho Wong, Jia Jun Shen, and Guosheng Yin	SUMSHINE: Scalable Unsupervised Multi-Source Heterogeneous Information Network Embeddings
3	10:30-10:45	DM531	Colin Troisemaine, Joachim Flocon-Cholet, Stephane Gosselin, Sandrine Vaton, Alexandre Reiffers-Masson, and Vincent Lemaire	A Method for Discovering Novel Classes in Tabular Data
4	10:45-11:00	DM533	Md Rayhan Kabir, Samridhi Vaid, Nitakshi Sood, and Osmar Zaiane	Deep Associative Classifier
5	11:00-11:15	DM571	Haotian Xia, Rhys Tracy, Yun Zhao, Erwan Fraisse, Yuan-Fang Wang, and Linda Petzold	VREN: Volleyball Rally Dataset with Expression Notation Language
6	11:15-11:30	DM969	Hoon Seo, Lodewijk Brand, Lucia Saldana Barco, and Hua Wang	Scalable Multi-Instance Multi-Shape Support Vector Machine for Whole Slide Breast Histopathology
7	11:30-11:45	DM1020	Shengmin Jin, Rui Ma, Jiayu Li, Sara Eftekharnjad, and Reza Zafarani	A Spectral Measure for Network Robustness: Assessment, Design, and Evolution
8	11:45-12:00	DM1073	Minseok Han and Jong-Seok Lee	Clustering by Peak Merging

9	12:00-12:15	DM911	Giorgi Kvernadze, Putu Ayu Sudyanti, Nishan Subedi, and Mohammad Hajiaghayi	Two is Better Than One: Dual Embeddings for Complementary Product Recommendations
---	-------------	-------	---	---