Advanced Program Summary

26 October 2026 (Monday)						
	Meeting Room: Devonshire A and B					
8:45-9:00	Opening Ceremony					
9:00-9:45	Keynote Speech 1 (Prof. Xianbin Wang)					
9:45-10:30	Keynote Speech 2 (Prof. Minyi Guo)					
10:30-11:00	**Coffee Break**					
11:00-11:45	Keynote Speech 3 (Prof. Albert Zomaya)					
11:45-12:30	Keynote Speech 4 (Prof. Zuqing Zhu)					
12:30-13:30	**Conference Lunch**					
	Devonshire A	**Devonshire B**	**Online Room 1**	**Online Room 2**	**Online Room 3**	**Online Room 4**
13:30-15:30	ICA3PP-1	ICA3PP-2	ICA3PP-6	ICA3PP-7	ICA3PP-8	NDMAD-1
15:30-16:00	**Coffee Break**					
16:00-18:00	ICA3PP-3	ICA3PP-4	ICA3PP-9	ICA3PP-10	ICA3PP-11	IUCC-2 + CIT-3
19:00-20:30	**Conference Reception**					

27 October 2026 (Tuesday)						
	Meeting Room: Devonshire A and B					
9:00-9:45	Keynote Speech 5 (Prof. Shiqiang Wang)					
9:45-10:30	Keynote Speech 6 (Dr. Nektarios Georgalas)					
10:30-11:00	**Coffee Break**					
11:00-11:45	Keynote Speech 7 (Prof. Tony Q.S. Quek)					
11:45-12:30	Keynote Speech 8 (Prof. Lajos Hanzo)					
12:30-13:30	**Conference Lunch**					
	Devonshire A	**Devonshire B**	**Online Room 1**	**Online Room 2**	**Online Room 3**	**Online Room 4**
13:30-15:30	ICA3PP-5	CIT-1	ICA3PP-12	ICA3PP-13	ICA3PP-14	ICA3PP-15
15:30-16:00	**Coffee Break**					
16:00-17:45	DSCI-1+ IOI-1	IUCC-1 + CIT-2	ICA3PP-16	ICA3PP-17	ICA3PP-18	DSCI-2
19:00-21:30	**Conference Dinner**					

28 October 2026 (Wednesday)						
	Online Room 1	**Online Room 2**	**Online Room 3**	**Online Room 4**	**Online Room 5**	
9:00-11:00	AINet-1	AISys-1	MLSys-1	BDRA-1	MVIC-1	
11:00-11:15	**Break**					
11:15-13:00	AINet-2	AISys-2 + SAGIINAT-1	MLSys-2	BDRA-2	ICA3PP-19	
13:00	**End of Conference**					

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Online Meeting Information

Opening Ceremony and Keynotes
https://Universityofexeter.zoom.us/j/97476436523?pwd=USPZED0aZyXSasLrMVcD0KK7bDU7Zm.1
Meeting ID: 974 7643 6523 Passcode: 758273

Online Room 1
https://Universityofexeter.zoom.us/j/97947262886?pwd=EJzvv6GPcFPGjIsPaPxx426a6AxOzu.1
Meeting ID: 979 4726 2886 Passcode: 244273

Online Room 2
https://Universityofexeter.zoom.us/j/95741047422?pwd=z9kLSirzkS3UscyIjAnEfAbI7rmrYR.1
Meeting ID: 957 4104 7422 Passcode: 349728

Online Room 3
https://Universityofexeter.zoom.us/j/95245300271?pwd=ZOfStWueChhEWVWYXGP3bW0ZJ2Y56V.1
Meeting ID: 952 4530 0271 Passcode: 988034

Online Room 4
https://Universityofexeter.zoom.us/j/95076407802?pwd=yP6gg4S4LsgCfgKna9RqNXbQb6VVqM.1
Meeting ID: 950 7640 7802 Passcode: 087812

Online Room 5
https://Universityofexeter.zoom.us/j/94595001513?pwd=SJM4UmZRU6Av6p95hILwnYy3cCCRts.1
Meeting ID: 945 9500 1513 Passcode: 640430

Session Chair: Dr. Nektarios Georgalas

Keynote Speech 1

Towards Intelligence-Native 6G Systems: A Layered Perspective

Prof. Xianbin Wang
Fellow of CAE, EIC, and IEEE
Distinguished University Professor and Tier-1 Canada Research Chair
Director, Innovation Centre for Information Engineering
Western University, Canada

Abstract

The rapid evolution of wireless technologies, together with their ongoing convergence with AI and diverse vertical applications are profoundly reshaping future 6G enabled systems. To effectively support diverse and dynamic applications, future 6G networks must evolve beyond connectivity by intelligently orchestrating heterogeneous resources, services, machines and application requirements for eventual goal and value realization. This presentation begins by examining the fundamental challenges in 6G. A layered intelligence-native 6G architectural paradigm is introduced to elaborate how intelligence can be embedded across different levels of networked system operation. At the resource and service layers, a multi-dimensional multiple access (MDMA) mechanism is introduced as a heterogeneous service provisioning platform that intelligently coordinates multi-dimensional radio resources for value-oriented service provisioning. To achieve diverse operation goals at system level, this talk will also explore the critical aspects of trusted machine collaboration in 6G-enabled networked systems for effective task completion and value-oriented system operation.

Biography

Dr. Xianbin Wang is a Distinguished University Professor and a Tier-1 Canada Research Chair in Trusted Communications and Computing at Western University, Canada. His current research interests include 5G/6G technologies, communications security, physical AI and networked systems. He has over 800 highly cited journals and conference papers, in addition to over 30 granted and pending patents and several standard contributions. Dr. Wang is a Fellow of IEEE, a Fellow of Royal Society of Canada, a Fellow of the Canadian Academy of Engineering and a Fellow of the Engineering Institute of Canada. He has received many prestigious awards and recognitions, including the IEEE Canada R. A. Fessenden Award, Canada Research Chair, Engineering Research Excellence Award at Western University, Canadian Federal Government Public Service Award, Ontario Early Researcher Award, and 12 Best Paper Awards. He is currently a member of the Senate, Senate Committee on Academic Policy and Senate Committee on University Planning at Western. He has been involved in many flagship conferences, including ICC, GLOBECOM, VTC, PIMRC, WCNC, CCECE, and ICNC, in different roles, such as General Chair, TPC Chair, Symposium Chair, Tutorial Instructor, Track Chair, Session Chair, and Keynote Speaker. He has served as the Editor-in-Chief, Associate EiC, area editor, associate editor and guest editor for over ten journals. He was nominated as an IEEE Distinguished Lecturer multiple times by different IEEE technical societies. He has served on the Fellow Committees of IEEE and IEEE Communications Society. He was the Chair of the IEEE ComSoc Signal Processing and Computing for Communications (SPCC) Technical Committee and the Central Area Chair of IEEE Canada.

Session Chair: Prof. Jia Hu

Keynote Speech 2

On the new Cloud Architectures for AI Computing

Prof. Minyi Guo
IEEE Fellow
Zhiyuan Chair Professor
European Academy of Sciences Member
ACM Distinguished Member
Director of Emerging Parallel Computing Center
Shanghai Jiao Tong University, China

Abstract

Intelligent computing is emerging as a new quality productive force in the digital economy era. With intelligent applications represented by large models evolving rapidly, cloud computing systems face entirely new requirements. Traditional cloud architectures encounter three major challenges: at the "cloud" level, it is difficult to adapt to diverse and heterogeneous computing power; at the "compute" level, balancing high throughput with high compute utilization remains challenging; and at the "intelligence" level, coordinating differentiated application objectives proves difficult. This talk shares insights and practical experiences regarding intelligent computing cloud systems across three dimensions—"efficient pooling," "maximizing compute utilization," and "perception-driven scheduling"—alongside their large-scale deployment in leading enterprises and open-source communities. It further looks ahead to building adaptive cloud computing systems through a "perception–decision–evaluation" closed loop, providing a scalable and inclusive computing foundation for the era of intelligent computing.

Biography

Dr. Minyi Guo is the Zhiyuan Chair Professor of Shanghai Jiao Tong University. His present research interests include parallel/distributed computing, compiler optimizations, big data and cloud computing. He has more than 700 publications in major journals and international conferences in these areas. He received 10 best/highlight paper awards from international conferences including ISCA2024 and ISCA2026. Dr. Guo also got the national science and technology achievement award in 2019. He was Editor-in-Chief of IEEE Transactions on Sustainable Computing and now is the Transactions Operation Chair of IEEE Computer Society. He won 2023 IEEE Edward J. McCluskey Technical Achievement Award for his contributions to the design and realization of resource-efficient cloud computing. He is Fellow of IEEE and CCF.

Session Chair: Dr. Haozhe Wang

Keynote Speech 3

From Foundation Models to Assured Intelligence

Building dependable AI across the cloud–edge continuum

Prof. Albert Zomaya
Fellow of IEEE, Australian Academy of Science, and the Royal Society of New South Wales
Peter Nicol Russell Chair Professor of Computer Science
Director, Centre for Distributed and High-Performance Computing
University of Sydney, Australia

Abstract

Artificial intelligence is rapidly moving beyond centralized models and controlled environments. It is becoming distributed across clouds, edge devices, wireless networks, sensors, robots, and other cyber-physical systems. Although advances in foundation models have greatly expanded what AI can do, capability alone does not guarantee dependable operation. In mission-critical and resource-constrained environments, intelligent systems must also remain reliable, efficient, secure, fair, and accountable despite heterogeneous resources, uncertain conditions, intermittent connectivity, and changing participants.

This talk examines the emerging need for assured distributed intelligence. This approach treats assurance as a fundamental systems requirement rather than as an evaluation performed after deployment. The talk will explore how computation, communication, data, and learning can be orchestrated across the cloud–edge continuum. It will discuss the tension between performance and assurance, including the need to balance accuracy, latency, energy consumption, resilience, privacy, and fairness. The talk will conclude by outlining a research agenda for intelligent systems that can monitor their own operating conditions, adapt safely at runtime, and provide meaningful evidence about their behaviour. The next phase of intelligent computing will not be defined only by larger models or greater autonomy, but by our ability to make distributed intelligence dependable in the physical world.

Biography

Albert Zomaya is the Peter Nicol Russell Chair Professor of Computer Science at the University of Sydney and Director of the Parallel and Distributed Computing Research Lab. A global leader in parallel and distributed systems, he has authored more than 800 publications and 30 books. He is a Fellow of the IEEE, the Australian Academy of Science, and the Royal Society of New South Wales, and an elected member of Academia Europaea and the European Academy of Sciences and Arts. Professor Zomaya has been recognized as a Clarivate Highly Cited Researcher in multiple years and previously served as Editor-in-Chief of IEEE Transactions on Computers, IEEE Transactions on Sustainable Computing, and ACM Computing Surveys. He is the recipient of many awards, and his work spans parallel and distributed computing, networking, and complex systems, with a lasting influence on both theory and practice.

Session Chair: Dr. Wang Miao

Keynote Speech 4

Adaptive Topology Engineering for Optically-Interconnected AI Clusters

Prof. Zuqing Zhu
IEEE Fellow, Optica Fellow
Director of INFINITE LAB,
University of Science and Technology of China, China

Abstract

Recently, the rapid development of information and communications technologies has widely promoted the applications of artificial intelligence (AI). This has driven the fast expansion of the scale of large language models (LLMs), making their training not be able to be handled by single GPUs. Therefore, distributed training has to be adopted for LLMs, and nowadays, distributed LLM training has become the fastest-growing application in data-center networks (DCNs). Compared with legacy DCN applications, LLM training jobs rely more on the collective communication that organizes a cluster of training processes to take part in synchronized computing and communication phases iteratively, and thus generate traffic patterns that are more skewed in the spatial and temporal domains and can shift repeatedly. This motivates DCN operators to push harder for the network reconfigurability in inter-rack/pod segments, resulting in the introduction of optical circuit switching (OCS) into DCNs. Specifically, in addition to traffic engineering (TE), OCS brings the flexibility of topology engineering (TPE) to offer extra reconfigurability, i.e., since the switching matrix of an OCS switch can be reconfigured in run-time, TPE can be realized to steer inter-pod connectivity to adapt to the dynamic and skewed inter-pod traffic matrix. In this talk, we will discuss our recent progress on how to realize adaptive topology engineering (TPE) for accelerating the training of LLMs in optically-interconnected AI clusters.

Biography

Zuqing Zhu obtained his PhD degree from the University of California, Davis, in 2007. He is currently a Full Professor at the School of Information Science and Technology, University of Science and Technology of China (USTC). Prior to that, he worked in the Service Provider Technology Group of Cisco, San Jose. Dr. Zhu has been the Chair of the Technical Committee on Optical Networking (ONTC) of the IEEE Communications Society (ComSoc) (2022-2023). He is currently the Lead Series Editor of the Optical Communications and Networks Series in IEEE Communications Magazine, the Area Editor of Optical Communications and Networking of IEEE Open Journal of the Communications Society, and on the editorial boards of IEEE Transactions on Network and Service Management, Optical Switching and Networking (Elsevier), etc. Dr. Zhu is the Steering Committee Chair of the IEEE International Conference on High Performance Switching and Routing (HPSR), the Chair of the GLOBECOM/ICC Technical Content (GITC) Committee (one of the two steering committees of GLOBECOM/ICC), a Member of the Conferences Council of ComSoc, and a Member of the Fellow Evaluation Committee of IEEE ComSoc, etc. His research focuses on optical networks, data-center networks, and artificial intelligence, and he has published 390+ papers in referred journals and conferences of IEEE, ACM and Optica. He has received the 2023 Distinguished Technical Achievement Award from the Communications Switching and Routing Technical Committee (CSR-TC) of ComSoc, and the 2023 Malathi Veeraraghavan Service Award from the ONTC of ComSoc. He is a Fellow of IEEE.

Session Chair: Dr. Rui Jin

Keynote Speech 5

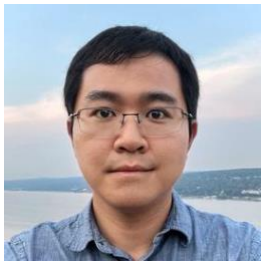
Towards Agentic AI at the Edge: Challenges and Opportunities

Prof. Shiqiang Wang
IEEE Fellow
University of Exeter, UK

Abstract

Agentic AI systems that can reason, plan, and act with tools are becoming a promising paradigm for real world applications, especially at the edge where low latency, privacy, and resilience are critical. However, edge environments impose strict constraints on compute, memory, and reliability, making it challenging to achieve high quality outcomes. In this talk, I will present a perspective on enabling agentic AI at the edge by integrating insights from recent benchmarking and prior work on model selection and routing. Our study shows that agentic performance does not scale simply with model size and instead depends on the interaction between models, tools, and task domains, with non steady scaling trends and distinct failure patterns. Building on this, I will discuss approaches such as TMO for adaptive inference across both local and cloud nodes and MESS+ for cost optimal model routing with service guarantees, which together help balance quality, latency, and cost. I will conclude by outlining key challenges and opportunities in moving toward robust agentic systems through workload aware model selection and system level co-design.

Biography



Shiqiang Wang is a Professor of Artificial Intelligence in the Department of Computer Science, University of Exeter, United Kingdom. He was a researcher at IBM T. J. Watson Research Center, NY, United States until Oct. 2025. He received his Ph.D. from Imperial College London, United Kingdom, in 2015. His research focuses on the intersection of artificial intelligence (AI), distributed computing, and optimization, with a broad range of applications including large language models (LLMs), agentic AI, efficient model training and inference, and AI in distributed systems. He has made foundational contributions to edge computing and federated learning that generated both academic and industrial impact. Dr. Wang served as an associate editor of the IEEE Transactions on Mobile Computing, IEEE Transactions on Parallel and Distributed Systems, and IEEE Transactions on Computational Social Systems. He also served as an area chair of major AI and machine learning conferences, including AAAI, ICLR, ICML, and NeurIPS. He received the IEEE Communications Society (ComSoc) Leonard G. Abraham Prize in 2021, IEEE ComSoc Best Young Professional Award in Industry in 2021, Best Paper Runner-Up of ACM MobiHoc 2025, IBM Outstanding Technical Achievement Awards (OTAA) in 2019, 2021, 2022, and 2023, multiple Invention Achievement Awards from IBM since 2016, and Best Student Paper Award of the Network and Information Sciences International Technology Alliance (NIS-ITA) in 2015. He is an IEEE Fellow and a member of ACM and ELLIS. More details are available on his webpage: https://shiqiang.wang.

Session Chair: Dr. Ning Chen

Keynote Speech 6

Beyond Connectivity: AI-Driven Orchestration for Connected Autonomous Systems

Dr. Nektarios Georgalas
Senior and Principal Researcher
Manager for Innovation, Solutions Architecture and Technical Programme (IoT)
British Telecom (BT), UK

Abstract

As drones, robots and autonomous vehicles become mobile sensing and service platforms, the challenge shifts from connecting individual devices to coordinating their collective behaviour. Heterogeneous fleets and swarms demand automation at two levels: managing each device and aligning the wider group with shared operational objectives. Reducing dependence on continuous human intervention becomes essential, while retaining oversight where decisions exceed delegated authority. This challenge extends beyond the devices themselves. Connectivity, computation and application services must adapt as assets move, workloads change and resources become constrained. A drone can remain connected while its application becomes ineffective; a network can recover while the service remains disrupted. The central problem is therefore coherence: aligning distributed decisions across devices, networks, edge computing and applications. This keynote presents an architectural approach combining event-driven orchestration, intent-based service management and AI-enabled assurance. It examines how telemetry, network events and service context inform resource allocation and corrective action in dynamic environments. Specialist agents assess coverage and energy consumption, coordinate interactions and formulate service recommendations, while predictive and agentic assurance connect observed behaviour with service objectives. These capabilities provide a practical foundation for examining the transition from individually managed assets towards coordinated groups of autonomous systems. The discussion connects service continuity with energy-aware operation and commercial value, examining how orchestration can support services beyond connectivity alone. It addresses a fundamental research question: how can local intelligence contribute to dependable collective behaviour without transferring operational complexity back to human operators? By connecting architectural principles with implementation experience, the keynote explores the opportunities and unresolved challenges in orchestrating intelligence for a world in motion.

Biography

Nektarios Georgalas is Innovation Principal, Data and AI, at BT and Industrial Principal Investigator at the BT Ireland Innovation Centre, where his portfolio spans Autonomous IoT, Process Mining and Analytics, and Trustworthy and Explainable AI. He specialises in translating advanced research into reliable, scalable capabilities for networks, enterprise platforms and customers with focus on business exploitation and commercial value creation of the research outcomes. His work brings together AI-driven orchestration, predictive assurance and edge-to-cloud computing to advance self-managed, autonomous IoT ecosystems. He leads multidisciplinary collaborations across academia, research, engineering and business, alongside international TM Forum programmes exploring how networks, moving devices and application services can adapt together. His wider portfolio includes AI-enabled observability and language-model-based contract analysis, connecting technical innovation with operational adoption and commercial value. Previously, he directed BT co-innovation programmes with Intel and Huawei and established and led TM Forum standards teams and international innovation consortia. His work and collaborations have received more than 20 international and industry honours and distinctions, including recognition from TM Forum, IEEE, IET and Global Telecoms Business. Most recently, the BTIIC AI-driven Contract Lifecycle Management solution within his portfolio won the AI in Finance, Accounting & Audit category at the National AI Awards 2026. An inventor or co-inventor of 20 patents and author of more than 100 peer-reviewed publications, he has chaired seven IEEE conferences, served as a guest editor for IEEE journals and co-edited eight conference proceedings volumes. He regularly delivers keynotes on AI, IoT and digital transformation.

Session Chair: Prof. Chunbo Luo

Keynote Speech 7

Unlocking the Potential of AI-RAN: A Pathway towards Future Network Intelligence

Prof. Tony Q.S. Quek
Fellow of IEEE, WWRF, and Academy of Engineering Singapore
Cheng Tsang Man Chair Professor
ST Engineering Distinguished Professor
Singapore University of Technology and Design, Singapore

Abstract

The RAN intelligent controller (RIC) is cloud native and a central component of a virtualized RAN network. The RIC enables to deployment of machine learning and AI techniques to optimize resources and services in the RAN. Thus, it is an important component that brings intelligence, agility, and programmability to the radio access network. On the other hand, there is a future trend to explore the concurrent use of converged computer-and-communications infrastructure to run RAN and AI and Generative AI workloads, enhancing platform utilization and creating new monetization opportunities. Lastly, it is crucial to understand the radio interface requirements for running AI and Generative AI applications across consumer, enterprise, and government sectors. In this talk, we will share about AI-RAN Alliance and how it plans to transform future networks with AI. Furthermore, we will also share some of our work in AI-RAN through Singapore's Future Communications Research and Development Programme (FCP).

Biography

Tony Q.S. Quek received the B.E. and M.E. degrees in Electrical and Electronics Engineering from Tokyo Institute of Technology, respectively. At Massachusetts Institute of Technology, he earned the Ph.D. in Electrical Engineering and Computer Science. Currently, he is the Associate Provost (AI & Digital Innovation) and Cheng Tsang Man Chair Professor with Singapore University of Technology and Design (SUTD). He also serves as the Director of the Future Communications R&D Programme, and the ST Engineering Distinguished Professor. His current research topics include wireless communications and networking, network intelligence, non-terrestrial networks, open radio access network, and 6G. His current research topics include wireless communications and networking, AI-RAN, non-terrestrial networks, open radio access network, and 6G.

Dr. Quek received the 2008 Philip Yeo Prize for Outstanding Achievement in Research, the 2012 IEEE William R. Bennett Prize, the 2016 IEEE Signal Processing Society Young Author Best Paper Award, the 2017 CTTC Early Achievement Award, the 2017 IEEE ComSoc AP Outstanding Paper Award, the 2020 IEEE Communications Society Young Author Best Paper Award, the 2020 IEEE Stephen O. Rice Prize, the 2020 Nokia Visiting Professorship, the 2022 IEEE Signal Processing Society Best Paper Award, the 2024 IIT Bombay International Award For Excellence in Research in Engineering and Technology, and the IEEE Communications Society WTC Recognition Award 2024. He is an IEEE Fellow, a WWRF Fellow, and a Fellow of the Academy of Engineering Singapore.

Session Chair: Prof. Ligang He

Keynote Speech 8

'Entangling' Classical and Quantum Communications

Prof. Lajos Hanzo
Fellow of the Royal Academy of Engineering
European Research Council Advanced Fellow
FIEEE, FIET, Fellow of EURASIP, DSc, Dr. Honoris Causa
Professor and Chair
University of Southampton, UK

Abstract

In the current Near-Term Intermediate-Scale Quantum (NISQ) computing era the number of quantum bits handled by quantum computers is still limited, yet, as we will discuss, there are already a suite of sophisticated solutions for harnessing Quantum Processing Units (QPUs) in support of wireless communications. At the same time, ultimately secure quantum key distribution (QKD) has reached commercial reality and has found its way into high-security banking, defence and governmental applications. Despite this relative maturity, numerous limitations exist in quantum communications. Hence a wide community-effort is required for solving the suite of open problems and circumventing quantum communications calamities. Based on "Quantum Information Processing, Sensing and Communications: Their Myths, Realities and Futures" by Hanzo et al., Proceedings of the IEEE, 2025, the marriage of classical and quantum communications is discussed, outlining their intricate symbiosis.

Biography

Lajos Hanzo is a Fellow of the Royal Academy of Engineering, FIEEE, FIET, Fellow of EURASIP and a Foreign Member of the Hungarian Academy of Sciences. He has published widely, including 20 Wiley-IEEE Press research monographs. He was bestowed upon the IEEE ComSoc Edwin Howard Armstrong Award and the Eric Sumner Technical Field Award. More information about Lajos Hanzo can be found at: https://www-mobile.ecs.soton.ac.uk/ and https://en.wikipedia.org/wiki/Lajos_Hanzo.

13:30-15:30 Session ICA3PP-1: Parallel Programming and Systems Optimization (Room: Devonshire A)

Session Chair: Haozhe Wang, University of Exeter, UK

- Unlocking Polyhedral Optimization for Kokkos Kernels
  Ugo Battiston, Philippe Clauss, Marc Pérache
- Extending CPU-less parallel execution of lambda calculusin digital logic with lists and arithmetic
  Harry Fitchett, Jasmine Richie, Charles Fox
- MAMP: A Library for Malleable Parallelization of Sequential Code with MPI.
  Pablo Liste Cancela, Víctor Sande Veiga, Óscar García Lorenzo, José Carlos Cabaleiro Domínguez, Juan Ángel Lorenzo del Castillo, Francisco Fernández Rivera
- Adaptive Priority-based Task Scheduling for Heterogeneous Hardware
  Yiqing Wang, Qingxiao Sun, Xin You, Zhibo Xuan, Chenhao Xie, Julio Sahuquillo Borrás, Hailong Yang
- Effect of Abstractions and Prompting Strategies on LLM-Guided High-Performance Optimizations
  Jiri Klepl, Matyáš Brabec, Martin Kruliš
- Data Placement Optimization for Set-associative Address Mapping in Modern SSDs
  Jiatao Cheng, Aobo Yang, Weiyong Zhang
- Performance Bottlenecks in GPU-Resident RAG: A Pressure Framework and Targeted Remedies
  Zhihui Du, Sukriti Choudhary, Fabricio Flores, Kevin Joseph, Yao Liu, Mukhil Azhagan Mallaiyan Sathi, Lalith Narasimhan, Sujin Philip, Lin Sun, Phani Vaddadi, Viswanath Vadlamani, Anuya Welling
- Fuyun: Bridging the Semantic Gap in Serverless Resource Provisioning via LLM-Guided Policy Synthesis
  Qingwen Li, Kai Lv, Mingxuan Yang, Zhengyu Lei, Cunchi Lv, Xiao Shi, Xiaofang Zhao

13:30-15:30 Session ICA3PP-2: Edge Computing and Federated Learning (Room: Devonshire B)

Session Chair: Hamza Djigal, Wenzhou-Kean University, College of Science, Mathematics and Technology, China

- SCMD: Security-Constrained Multi-Predecessor Duplication Algorithm for Scientific Workflow Scheduling in IaaS Clouds
  Chengyu Zhang, Qiwen Xue, Hamza Djigal
- T2DLearning: A Learning Framework for Dynamic Task Scheduling in Mobile Edge Computing
  XUANYU LIU, Ligang He
- Fault-Tolerant Energy-Efficient Scheduling of Moldable Streaming Computations for the Edge-Cloud Continuum
  Sajad Khosravi, Sebastian Litzinger, Alexander Lindskog, Christoph Kessler
- Edge-Cloud Reliability Gating for AIoT Vision under Sensor Shifts and Resource Constraints
  Boxi Chen, Yapeng Wang, Xu Yang, Sio-Kei Im, Ching-Chun Chang, Chao Liu, Chin-Chen Chang
- Leveraging Coded Computing with Compact Data Structures to Mitigate Straggler Problems in Distributed Edge Learning
  Aodhan Ferry, Shishir Nagaraja, Yun Wu, Rajiv Ranjan, Zheng Li

- FeD^2LoRA: Heterogeneity-Aware Federated Fine-Tuning of Large Language Models with Dual Low-Rank Adaptation
  YAO LU, Jiaxing Qi, Zhongzhi Luan, Shizhe Shang, Shaohan Huang, Bin Han, Carol Fung , Yongxin Tong, Hailong Yang, Depei Qian
- Gauge Calibration Guided by Neural Collapse for Distributed Heterogeneous Federated Learning
  Zhenhao Liu, Xiaozhu Liu, Yonghui Wu, Wei Song, Rongbo Zhu
- Fed2xDAG: Federated Dual-stage Dynamic Adaptive Gating for Heterogeneous Few-Shot IoMT Attack Detection
  Xian-Xian Liu, Amir H. Gandomi, Mingkun Xu

13:30-15:30 Session ICA3PP-6: Computer Architecture and System Optimization (Online Room 1)

Session Chair: Can Liu, Soochow University, China

- CESAB: A Complexity-Effective Slice-Aware Backend for Wide-Issue Processors
  FeiHu Yin, Xin Cheng, Fuxin Zhang, Jian Wang
- A Stochastic Superoptimizer for RISC-V with Learning-Guided Search Budgeting
  Jianfeng Guo, Jianjun Shi, Jianhua Gao, Weixing Ji
- ReProbe: Exploiting LLC Set Replacement Behavior for Fine-Grained Multicore Interference Generation and Evaluation
  Jiansheng Guan, Yong Cai, JiaHao Ge, JiLu Zhang, Ruyang Fan, TianChi Zhang, Jinhui Lyu
- OnlineTransformer: A Hybrid Neural Architecturefor Data Prefetching
  Shengtao Wu, Yuheng Zhao, Peng Wang
- CW-Ghost: Search-Free Granularity Selection for Helper-Thread Prefetching via Capacity Windows
  Ya Zhang, Tong Lei, Yao Chen, Yonggang Che, Chuanfu Xu, Haozhong Qiu, Yusong Tan
- DIG: Performance Diagnosis for Pre-Silicon SoC Interconnect Verification Using State Dependency Graph
  Jinlong Liu, Chen Li, Jianzhuang Lu, Liufu Chen, Yang Guo
- Proxy Multicast: Efficient Request De-duplication for NoC Multicasting
  Qianruo Li, Tianyi Liu, Yungang Bao
- HERA: A Heterogeneous MAC-PQ Accelerator for DSP-BRAM Balance on FPGAs
  Yongchun Huo, Huiyong Li, Keke Fu
- Towards ADC-Free Intelligent Sonar: A Memory-Centric Architecture with Fully-Analog Convolution-Like Computing
  Yuhang Zhu, Zhi Chen, Sizhao Li

13:30-15:30 Session ICA3PP-7: Distributed Training and LLM Inference Systems (Online Room 2)

Session Chair: Yao Lu, Anhui University, China

- FP8Comm: Bandwidth-Efficient Tensor-Parallel Training via Precision-Decoupled FP8 Collectives
  Penglong Lu, Keshi Ge, Wenwei Long, Lichen Pan, Wei Zhang, Ruibo Wang
- Helix: Accelerating Data-Parallel Training via Dynamic Low-Rank Compression and Fine-Grained Communication
  Wenwei Long, Keshi Ge, Penglong Lu, Min Xie, Wei Zhang
- One-Shot Static Two-Hop Splitting for MoE All-to-Allv over Hybrid Optical/Electrical Supernodes
  Lin Xin, Xiyue Zhang, Bing Hu, Liyan Li, Chenyi Zhang
- Optimizer State Management in Periodically Synchronized Distributed Training
  Imane Ettifouri, Mostapha Zbakh, Claude Tadonki

- CoCo: A Fine-Grained CPU-GPU Cooperative Computing Framework for Memory-constrained LLM Training
  Yawen Deng, Zhen Jin, Wenzhi Chen
- GM-Share: Transparent GPU Memory Sharing for Shared-Backbone Multi-Agent LLMs
  Mingxuan Yang, Qingwen Li, Ke Rui, Peizhong Qiu, Hongwei Tang, Xuehai Hong
- Dependency-Aware KV Cache Management for Collaborative Edge LLM Inference
  Wenjie Huang, Qing Yang, JinHua Xiao
- LoRABlend: Characterizing and Optimizing Slot Allocation for Multi-LoRA Serving Systems
  Shao Wang, Rui Ren
- ShapeShift: Active-Shape Scheduling for Diffusion Language Model Serving
  Kexin Chu

13:30-15:30 Session ICA3PP-8: Security and Privacy (Online Room 3)

Session Chair: Rafid Al-Khannak, Buckinghamshire New University, UK

- Formalization and Verification of Software-Defined Perimeter Using CSP
  Pengfei Jiang, Zhiru Hou, Huibiao Zhu
- Automated Detection of Timing Side-Channel Vulnerabilities in Cryptographic Services Using Large Language Models
  Xiuze Dong, Wang Zhao, Maosheng He, Kangfei Xiao, Zhiqiang Liang, Runze Zhou, Qian Cheng
- Assessing the Dependability of Executable and Linkable Format Malware Detectors via Large Language Model-Guided Semantic Rewriting
  Peng Wei, Xiao Han, Fangze Xu, Zhangbo Long, Haiping Huang
- BinEviAgent: An Evidence-Grounded LLM Agent for PE Malware Triage
  Xihuan Lin, Tianzhe Liu, Jiancheng Huang, Riqing Chen
- Lightweight Intrusion Detection Using Cross-Space Oversampling and Dynamic Feature Fusion in IoT Networks
  xingbo xu, ye cheng, shaoyong guo, tao bai, lincong zhao
- Temporal Cardinality Leakage in Streaming Searchable Encryption: A Continual-DP Analysis
  Yindi Zhu, Yulun Wu, Li Li
- Masquerade: Metadata Decoupling for OOD Backdoor Attacks in Federated Learning
  Changrui Zheng, Jiageng Chen, Yanyu Tong, Wenye Xing, Chunhua Su, Weizhi Meng
- PlanScopeBench: A Security Benchmark for Plan Integrity in LLM-based Multi-Agent Systems
  Xulong Yan, Hao Zhou, Hua Dai, Xianjie Guo, Yubo Ni, Geng Yang
- Provenance-Aware Parameter Authorization for Tool-Using LLM Agents at Service Boundaries
  Shenao Yang, Mingzhuo Yu, Shuai Wang, Axin Xiang, youliang tian

16:00-18:00 Session ICA3PP-3: System Security and Blockchain (Room: Devonshire A)

Session Chair: Wei Han, China University of Geosciences, China

- Real-Time Post-Quantum Secured Image Pipelineon NVIDIA BlueField-3 DPU
  Jerónimo Sánchez García, Joseph Meyer, Idelfonso Tafur Monroy, Juan Jose Vegas Olmos, Sokol Kosta
- ATRA: An Anonymous and Traceable Threshold Signature-Enhanced Asynchronous BFT System
  Boxi Chen, Yapeng Wang, Sio-Kei Im, Jiaxing Liu, Chao Liu
- A Framework for Run-Time Trojan Horse DetectionUsing Heterogeneous Multi-Cores and Cross Auditing
  Cheng-Yuan Tseng, Shi-Yu Huang, Chi-Kang Chen

- Dr.Cast: Byte-Precise Boundary Verification Framework for Architecture-Transparent Type Confusion Detection
  Feng Wentao, Li Shaowen, Song Ziyi, Shang Shizhe, Ban Kuiying, Ge Sitong, Jiaxing Qi, Luan Zhongzhi
- ESL-former: Event Sparse Linear Transformer forFPGA-Accelerated Malware Detection
  Jun Yang, Yumeng Cao, Yingxuan Xiao, Changhong Li, Shangru Zhou
- BLSR-VD: Boundary-Localized Structural Refinement for Function-Level Vulnerability Detection
  Yinhu Zhao, Riqing Chen, Guanjun Lin, Heming Jia
- A Label-Consistent Dual Frequency-Domain Backdoor Attack in Distributed Data-Parallel Training
  Yizhun Zhang, Jie Huang, Zesen Ma, Changhao Ding

16:00-18:00 Session ICA3PP-4: Heterogeneous Computing I (Room: Devonshire B)

Session Chair: Zihao Chen, University of Exeter, UK

- Parallel Number-Theoretic Transform with Double-Word Arithmetic on GPU Clusters
  Daisuke Takahashi
- Structure-Adaptive Supernodal Sparse Cholesky Factorization on CPU-GPU Systems
  Yingxiu Guo, Mingkun Wang, Rui Wang, Yi Liu
- Fortran to CUDA: Automated Seamless Acceleration of Stencil-based Simulations
  Matyáš Brabec, Martin Kruliš, Vladimír Fuka
- SIMD-parallel Base64 Encoding on CPU Cores
  Marius Rosenbaum, Carina Heßeling, Jörg Keller
- Evaluating Parallel Implementations of Fully Homomorphic Matrix Multiplication Algorithms
  Justo Molina Centelles, Emilio Notari, Darwin Quezada-Gaibor, José I. Aliaga, Sandra Catalán, Manuel F. Dolz
- gSIMD: GPU Acceleration of NURBS Surface Intersection and Minimum-Distance Analysis on NVIDIA H100
  Cong Shao, Zisheng Wan, Zhibo Xuan, Xin You, Hailong Yang
- FNO-INFER: Efficient Inference Serving for Fourier Neural Operators with a RawFFT-Fused GPU Backend
  Peisen Gao, Chenhao Xie, Rui Wang, Yi Liu
- SpectralFlow: Architecture-Aware FNO Training on Cluster-DSP Heterogeneous Supercomputers
  Yao Lu, Zhongzhi Luan, Jinxia CHEN, Jiaxing Qi, Gen Li, Bin Han, Hailong Yang, Rui Wang, Depei Qian

16:00-18:00 Session ICA3PP-9: Parallel Algorithms and Scientific Computing (Online Room 1)

Session Chair: Zhihui Du, AMD

- Accelerator-Oriented Refactoring of a 25-km Unstructured-Grid Ocean Model
  Yaxin Li, Jinrong Jiang, Xuebin Chi, Run Guo, Guangqing Zhou, Lian Zhao, Xiang Han, Yidi Bai, Junlin Wei
- TETRIS: Enabling Three-Dimensional State-to-State Hypersonic CFD on GPUs
  Lingyun Gao, Xin Zhang, Hui Liu, Wu Yuan, Xiaoyong Wang, Jian Zhang, Xiazhen Liu, Shan Liang
- TileSPH: A Memory-Efficient Warp-Subgroup Tiled Strategy for GPU-Accelerated SPH
  Zhenhang Zeng, Junshi Chen, Yang Zhao, Junmin Wu, Hong An
- CUDA-Based Heterogeneous Parallel Optimization of the AERMOD Receptor Loop
  Liancheng Zhou, Xin Liu, Chengzhi Wang, Yaomeng Guo

- Parallel Optimization of Plasma Guiding-Center Orbit Simulation on Heterogeneous Computing Platforms
  Ran Yin, Tao Liu, BaoFeng Gao, Han Qin, Shouchang Liu, Ying Guo, Jingshan Pan
- Performance Analysis and Optimization of Stencil Computations on Accelerator Units on CPUs
  Zitong An, Kangkang Chen, Huayou Su
- Flat-Seg-Sum: High-Performance Deterministic CSR-SpMV on Hygon DCUs
  You Chen, Genshen Chu, Zhaoshun Wang
- Convergence-Aware Graph Neural Preconditioners for FGMRES Method
  Wentao Wang, Min Tian
- StructTC-SVM: Accelerating SVM Training on Tensor Cores viaStructure-Aware Hybrid Kernel Design
  Yingying Zhao, Qinglin Wang, Chuhe Hong, Xing Peng, Mengying Zhao, Yuhuan Wang, Xinhai Chen, Qingyang Zhang, Jie Liu

16:00-18:00 Session ICA3PP-10: Cloud and Edge Computing (Online Room 2)

Session Chair: Can Liu, Soochow University, China

- Lyapunov-Guided Multi-Agent Reinforcement Learning Approach for Heterogeneous Task Offloading in IIoT Networks
  Mofan Yang, Huiyong Li, Qian Cao, Guanglei Song, Shasha Mo, Shuo Tan
- Dynamic Task Prioritization and ResourceAllocation in Vehicular Edge Computing Based onGraph Attention Networks and Soft Actor-Critic
  Hongfei Ren, Xin Chen, Libo Jiao, Saibo Wang
- A Multi-RSU Collaborative HierarchicalReinforcement Learning Method for TaskOffloading and Scheduling in Vehicular MobileMicro-Clouds
  Zhehua Zhang, Xin Chen, Libo Jiao, Saibo Wang
- Workload-Aware Service Deployment in Industrial Edge Networks
  Wenjie Huang, Jingye Ruan, Huayi Wu, JinHua Xiao
- Resource-Aware Risk-Sensitive Confidence-Calibrated Edge-Cloud Collaborative Inference for Resource-Efficient Predictive Maintenance in Industrial IoT
  Zhiqiang Wang, Jinyu Lu, Xinci Tang, Ying Chen
- Carbon-Aware Communication-Efficient Federated Intrusion Detection across Edge-to-Cloud Continuums
  Fucai Xie, Haijia Zhong, Yahui Chai, Fuming Lai, Qizhou Chen, Keming Qiu, Xianpeng Wang, Xuehao Wang
- Communication-Efficient Federated PPO for DSSAT-Based Cotton Irrigation and Nitrogen Management
  Yiliang Wang, Liang He
- A Mobile Medical Equipment Location Management System Based on CSS and Edge Computing
  Xian-Xian Liu, Amir H. Gandomi, Mingkun Xu
- KubeEdge-Robot: A Cloud-Edge Collaborative Framework for Dual-Arm Robotic Assembly in Intelligent Manufacturing
  Xian-Xian Liu, Amir H. Gandomi, Mingkun Xu

16:00-18:00 Session ICA3PP-11: High-Performance Networks and Interconnects (Online Room 3)

Session Chair: Yuhang Wu, University of Exeter, UK

- RBM: Rate-aware Buffer Management for Lossless Datacenter Networks
  Jingling Liu, Rui Cui, Hao Fang, Zhong He, Wenjun Lyu, Zhiqing Li, Zhaoyi Li, Jiawei Huang

- FGFC: Fine-Grained Flow Control for RDMA in Cross-Datacenter Networks
  Jun Wang, Yuchao Zhang, Xiaoyue Lin, Wendong Wang
- PASA: Phase-Aware Transport for Periodically Reconfigurable Data Center Networks
  Zihan Li, Wenxin Li, Jin Zhang, Yulong Li, Dongting Yi, Jiawen Shen, Mingyu Chen, Sheng Chen, Wenyu Qu
- Split: Feedback-Aware Multipath Transport for Reconfigurable Data Center Networks
  Dongting Yi, Wenxin Li, Jin Zhang, Yulong Li, Zihan Li, Jiawen Shen, Mingyu Chen, Sheng Chen, Keqiu Li
- CXL-based Hardware-Software Co-optimization for Scalable RDMA Memory Mapping
  Zihao Wei, Dezun Dong, Liquan Xiao
- DFP-LZ4: Reconstructing LZ4 Dataflow for Multi-Core Compression in RDMA Networks
  Yixin Qin, Anbang Li, Meng Guo, Mingyue Jia, Zhiyuan Ma
- Triggered Entropy Load Balancing and Optimal Controller Selection for Efficient Distributed SDN
  Yongjing Shang, Jinshan Xu, Yao Lu, Jie Cui
- AP-Side Diagnosis and Bounded Trigger Compensation for Uplink Wi-Fi TCP Victims
  Hao Tong, Bing Hu, Liyan Li, Chenyi Zhang
- Extra Connectivity and Cluster Connectivity of the MBDC Network
  Rong Yuan, Qian Yu, Guijuan Wang, Jiguo Yu

27 October 2026 (Tuesday)

13:30-15:30 Session ICA3PP-5: Machine Learning and Applications I (Room: Devonshire A)

Session Chair: Ning Chen, University of Exeter, UK

- Confidence-Aware Temporal-First Graph Residual Refinement for Taxi Demand Forecasting
  Tianqi Wang, Ligang He
- MARS: Explicit Memory Augmentation and Regime Specialization for Long-Term Time-Series Forecasting
  Lin Zheng, Songyuan Guo, Zuyan Chen, Yao Lu, Liu lu
- Lightweight Spectral Residual Calibration for Multivariate Time-Series Forecasting
  Hengxiao Li, Li Yunyin, Chuanru Ren, Liu lu
- Raw-Context-Preserving Structured Memory Augmentation for Long-Dialogue Question Answering
  Shiyuan Zhuang, Lei Liu, Hongjun Dai
- GeoCaseRAG: A Multimodal Case Retrieval-Augmented Framework for Field Geological Image Interpretation and Structured Note Generation
  Xinyu Zhang, Jingyu Zhao, Zhengxing Song, Wei Han
- Feature Interaction and Boundary-Aware Network for Camouflaged Object Detection
  Xiaokang Wang, Mingxiang Cheng, Kai Xie, Debin Liu, Chao Wu, Bo Liu
- A Software Platform for Orchestrating, Monitoring, and Evaluating Distributed Actor-Learner Urban Routing Systems
  Daan Schram, Alberto Garcia-Robledo, Mahboobeh Zangiabady
- Ros-RVGate: An Integrated Gateway for Runtime Verification in the Internet of Robotic Things
  Xian-Xian Liu, Amir H. Gandomi, Mingkun Xu

13:30-15:30 Session ICA3PP-12: Storage Systems and I/O Optimization (Online Room 1)

Session Chair: Yuanhao Li, University of Exeter, UK

- PLATO: A Storage-Aware Scheduling Framework for Data Migration in Parallel File Systems
  Haoyuan Lin, Yongfeng Wang, Zhiguang Chen

- BOLT: Pattern-Aware HPC I/O Acceleration Using Bayesian Optimization and LLM Tuning
  Jiaqiang Ma, Lihua Yang, Zhangyu Liu, Weizhao Lin, Yong Dong
- AutoPFL: Evidence-Grounded First-Run Progressive File Layout Selection for Burst Buffers
  Zhaohao Zhong, Huijun Wu, Min Xie, Wenzhe Zhang, Zhenwei Wu, Songlei Jian
- PAS-FUSE: Pattern-Aware Dynamic I/O Path Scheduler
  Yushuqing Zhang, Wenzhe Zhang, Ruibo Wang, Huijun Wu, Zhenwei Wu
- PAMLC: A Pattern-Aware Multivariate Lossy Compression Framework
  Ziyi Zheng, Kaibin Zhang, Zhongqing Shu, Lisong Wang, Liang Liu
- PMAlloc-DA: Durable Admission for Volatile Reuse in Persistent-Memory Allocators
  Zeming Li
- DP-LSM: Differentially Private Volume Padding at LSM Compaction
  Yindi Zhu, Yulun Wu, Li Li
- OrderKV: Balancing Write and Range Query Performance for Key-Value Separation
  Xingpeng lan, Chenfei Yuan, Bowen Luo, Haixin Qi, Shouzhen Gu, Liang Shi, Edwin Sha, Qingfeng Zhuge
- CerebraFTL: Rethinking Address Translation for FDP SSDs via Learned Indexes
  Fangxing Yu, Zhike Li, Chi Zhang, Shiqiang Nie, Weiguo Wu

13:30-15:30 Session ICA3PP-13: Federated Learning (Online Room 2)

Session Chair: Jialin Tian, University of Exeter, UK

- FedDecouple: Matrix Decoupling-Based Robust Aggregation for Federated LoRA
  Qing Li, Hongyi Peng, Xinhang Chen, Hui Lin
- FedCCA: Federated Cross-Client Consistency-Aware Aggregation via Update-Reference Alignment
  Chaoyue Song, Hongbo Tang, Yu Zhao, Jie Yang, Hang Qiu, Mingchuang Zhang, Yikun Wu
- CovOFL: Trace-Corrected Covariance Sketching for One-Shot Federated Learning
  Yanyu Tong, Jiageng Chen, Changrui Zheng, Wenye Xing, Weizhi Meng, Chunhua Su
- FedLGP: Layer-Wise Personalized Federated Learning via Conflicting Gradients and Quality-Aware Prototype Aggregation
  Yuxin Xie, Honghui Ning, Yijie Yin, Weizhi Meng, Shaobo Zhang
- FedHUA: Heterogeneity and Uncertainty Guided Alignment for Federated Learning via Query Generation
  Xiaochen Nie, Liangxi Wang, Ruijia Liu, Jianhua Wang, Zhuangzhuang Zhang, Dan Yu, Yongle Chen
- FedMC: Class-Wise Dual Knowledge Completion for Federated Learning under Extreme Missing Classes
  Ruihuan Liu, Liangxi Wang, Jianhua Wang
- Reliability-Aware Bidirectional Bias Calibration for Federated Data Valuation in Plant Disease Recognition
  Ouou Yang, Liang He
- DCS-DPFL: Dynamic Class-wise Temperature Scaling for Sample-Level Differentially Private Federated Learning
  Chuanyin Wang, Ximeng Liu, Huili Yu, Haolong Zhang
- FedUL-GRA: Utility-Preserving Request-Aware Federated Unlearning with Gated Retain Adaptation
  Zixiao Liu, Zhen Wang, Yilin Su, Jianhua Wang

13:30-15:30 Session ICA3PP-14: Heterogeneous Computing II (Online Room 3)

Session Chair: Jingmei Shu, University of Exeter, UK

- DASH: Accelerating Grouped GEMM under Heterogeneous Workloads and Resource Contention
  Xiwen Duan, Yuan Zhuang, Yunhui Zeng
- A Workload-Aware Distributed Execution Framework for GPU Subgraph Matching
  Xin Yang, Chen Chen, Li Shen
- SNNOpt: Exploiting Spiking-Specific Characteristics for Transparent, High-Performance Whole-Network SNN Inference
  Shifeng Liu, Zhijie Yang, Dongsheng Wang, Lei Wang
- Accelerating Fourier-MIONet Inference via Specialized Execution of Decoder-Tail Subgraphs
  yu feng, Tao Liu, BaoFeng Gao, Han Qin, Ying Guo, Jingshan Pan
- Cross-Vendor GPU-Native bzip2 Decompression with Vulkan: Mapping Irregular BWT Stages and Enabling Resident Analytics
  Yanjun Wang, Zhaoyan Chen
- HHEMV: A Heterogeneous Acceleration Design for Homomorphic Encrypted Matrix Vector Multiplication
  Li Li
- Performance Optimization of Homomorphic Encryption on Multi-Core DSPs
  Huayou Su, Kailun Fang
- DGA: Introducing Difference Recurrence to Accelerate Sequence-to-Graph Alignment
  Qingzhe Wang, Hangyu Liu, Yifei Guo, Xinjie An, Tao Tang, Xiangke Liao, Yingbo Cui
- Loop-Aware Failure Memory and Hierarchical Planning for LLM-Guided OpenMP Optimization
  Jinfeng Li, Jie Liu, Hao Li, Ke Liu, Qinglin Wang

13:30-15:30 Session ICA3PP-15: Machine Learning and Applications II (Online Room 4)

Session Chair: Ying Zhao, University of Exeter, UK

- Graph-Based Supply-Constrained Congestion Prediction, Early Warning, and Feedback for Renewable EV Charging Stations
  Yongyi Zhang, Shuohan Liu, Yue Cao, Lexi Xu, Max Hashem Eiza, Xianglong Zhou
- Sparse Incident-Cluster Learning for 12-hour PortFlood Pre-warning in Digital-Twin Analytics
  Jie Zhang, Qiang Ni, David Windridge, Huan X Nguyen
- RADR: A Reputation-Aware Dual-view Representation Learning Method for QoS Prediction
  Ziyan Liu, Yugen Du, Xia Chen, Yunpeng Han, Jingjing Huang
- Privacy-Preserving Power Forecasting via Federated Graph-enhanced Time Series Learning
  Yilei Xiao, Heng Qi
- Output Space Redistribution for Adaptive Label Removal in Classification Models
  Minyi Peng, Darian Gunamardi, Ivan Tjuawinata, Yongsen Zheng, Kwok-Yan Lam
- Sensitivity-Resistance Region-Aware Transfer Learning for Single-Cell Drug Response Prediction
  Liu Yingye, Wang Shudong, Pang Shanchen, Zhang Yuanyuan, Li Yunyin, Huang Shiyuan, Liu Tiyao, Liu lu
- AG-SDKT: Offline Optimization forCompute-Constrained 3D Medical ImageSegmentation
  Yuxin Tang, Chenhao Zhao, Yeyuan Jing, Zenan Shi, Yinhao Li
- Graph-DETR: A Graph Convolutional Network for Microscopic Image Object Detection
  Shanxie Liu, Guangyao Pang, Jiecheng Li, Zizhen Peng

- PGR-Net: Prior-Guided Recalibration Network for Fine-Grained Rice Mapping from UAV-Acquired RGB Imagery
  Guangwei Liu, Sheng Wang, xiaohui huang, Yuewei Wang, Yunliang Chen, Jianxin Li
- SCLFormer: A Spectrally Adaptive and Spatially Aware Mask2Former for Cross-Regional Aquaculture Pond Segmentation
  Enting Jiang, Dongyu Zhu, Meiling Luo, Xiaoyu He, Zhu Tao, Yaqin Li

16:00-17:45 Session ICA3PP-16: Blockchain and Data Security (Online Room 1)

Session Chair: Yuanhao Li, University of Exeter, UK

- DeltaBFT Accountable and Communication-Efficient State Propagation for BFT Blockchains
  Ke Li, Linlin Zhang, Miaomiao He, Kai Zhao
- MakoShard: Decoupled Cross-Shard Transaction Processing in Asynchronous Sharding Blockchains
  Yuehua Wu, Yunxiao Wang, Feihu Yan, Wenzhi Chen
- PETS: Threshold Privacy-Enhanced Multi-Party Signature Scheme for Blockchain
  Jian Xu, Guangwei Zhao, Bin Ma, Pei Zhang, Jinwei Wang
- IPVQuery: Efficient and Verifiable Querying over Blockchain-based Intellectual Property Provenance Records
  Kang Li, Gang Shi
- Verifiable Aggregation Scheme for Distributed Private Data in Blockchain
  Bin Ma, Yufan Hong, Jian Xu, Pei Zhang, Jinwei Wang
- SecureTier: A Scalable Secure Data Migration Framework with TEE-Integrated Byzantine Consensus for Distributed Time Series Databases
  Hanwen Zhang, Kai Sun, Kaixuan Li , Su Pan
- A Secure and Efficient Distributed Framework for Privacy-Preserving Medical Data Management with Intelligent Classification and Zero-Knowledge Authorization
  shuhui zhang, Yan Liu, Lianhai Wang, Shujiang Xu, Wei Shao, Qizheng Wang

16:00-17:45 Session ICA3PP-17: Workflow Scheduling and Real-Time Systems (Online Room 2)

Session Chair: Jialin Tian, University of Exeter, UK

- TD-Sched: Topology- and Data-Aware Scheduling for Scientific Workflows in Fat-Tree Clusters
  yixin he, Haowei Huang
- SLATE: Slack-Aware Tail-Resilient Scheduling for Parallel DAG Workffows on Heterogeneous Clusters
  Sirui Jia, Jizhao Liu
- Conditional DAG Task Scheduling throughConditional Branch Elimination
  Florian Krebs, Klaus Schneider
- Beyond Freshness: Asynchronous Observation in Runtime Scheduling
  Minqi Luo, Yonghong Guo, Jingyi Yu, Honglin Fan, Yigui Luo
- LMCRP: Long-Horizon Node-Level Resource Prediction with Heterogeneous Dependency Awareness in Cloud Data Centers
  Tianxu Li, Yi Liang, Yi Jin, Xing Su
- Tight Jitter Analysis and Offset Optimization for DAG-Structured Multi-Core LET Task Systems
  Chong Liu, Teng Wang, Chao Wang, Xi Li, Xuehai Zhou
- SoftMMU2E: A Software Virtual Memory Architecture for Parallel Task Collaboration in MMU-less Real-Time Systems
  Shaofeng Li, Tianqi Li, Huizhong Zhai

16:00-17:45 Session ICA3PP-18: Satellite Networks and Mobile Edge Computing (Online Room 3)

Session Chair: Yichen Xie, Unicom Vsens Communications Co.; Beijing University of Posts and Telecommunications, China

- QUASAR: Quantum Satellite Architecture and Routing Simulator
  Yaliang Shi, Zi Wang, Bangguo Yuan, Gaojie Wu, Zhiwei Zhao
- SUPER-DQN for Dynamic Offloading and Resource Allocation in SAGINs
  Muzhou Xiong, Kaizhan Yang, Jie Li
- OPERA: On-Orbit Pipelined and Elastic Resource-Adaptive Aggregation for Federated Learning in Low Earth Orbit Satellite Networks
  Gengjun Huang, Yi Zhang, Zuming Lin, Yifan Liu
- Service Recovery after Permanent UAV Failures in LEO-Assisted Multi-UAV Sensing: Recovery-Constrained Multi-Agent Reinforcement Learning
  Chunxiao Wang, Tong Ding
- Joint Privacy-Aware Partial Computation Offloading and Queue Control in Multi-UAV Mobile Edge Computing
  Tao Yang, Haifeng Sun
- Trajectory Privacy-Aware Task Offloading with Personalized Privacy Requirements in Dynamic MEC
  Tong Li, Haifeng Sun
- Hier-SC: Task-Aware Hierarchical Semantic Communication under Resource Constraints
  Yifei Wang, Jiatao Lin, Xiupu Lang, Haopeng Chen

28 October 2026 (Wednesday)

11:15-13:00 Session ICA3PP-19: Large Language Models and Applications (Online Room 5)

Session Chair: Maher Alaraj, Zayed University, United Arab Emirates

- FormalFlow: Constraint-Aware Workflow Generation via LLM-SMT Collaboration
  Xiaojian Gao, Boming Zhu, Chang Liu, Xiupu Lang, Haopeng Chen
- Knowledge-Guided Parallel Exploration for Mixed-Type Database Knob Tuning
  Ruijie Hu, Rui Xi
- From Answer-Level Proxies to Rule-State Transitions in Explicit-Rule LLM Reasoning
  Shenao Yang, Mingzhuo Yu, Shuai Wang, Axin Xiang, youliang tian
- A Hybrid LLM Framework for Natural Resource Data Management via Layer-wise Alignment and Semantic Indexing
  Pu Zou, Xiaodao Chen, xiaohui huang, Yuewei Wang, kaijun yang, Li Cao, Yunliang Chen, Jianxin Li
- MIEDA: Fine-Grained Hallucination Detection via Multi-Detector Independent Evaluation and Disagreement Arbitration
  Bing Du, Yanbing Liu, Yong Sun, Cong Cao, Fangfang Yuan
- BranchChain: A Sharded Blockchain with Committee--Shard Collaborative Consensus
  Lin Zhang, Huajian Yu, Hongxing Xu, Jiayuan Lv, Shaowen Yao

Part II: TECHNICAL SESSIONS OF IUCC-2026 and CIT-2026

26 October 2026 (Monday)

16:00-18:00 Session IUCC-2 & CIT-3: Ubiquitous Communications (Online Room 4)

Session Chair: Tong Ding, Ningxia University, China

- Return-Aware Recurrent Double Deep Q-Learning for Multi-UAV Wireless Data Harvesting
  Chenglin Tang, Lei Liu, Dailiang Jin

- Multi-Sensor Collaborative Data Transmission Optimization: ALoad-Balancing Strategy for Intelligent Transportation Systems
  Liwen Sheng, Tong Ding
- ERASE: Explicitly Removing Adversarial Safety Behaviors in Federated Instruction Tuning
  HongYi Peng, XinHang Chen, Qing Li, Hui Lin
- Detecting and Repairing Textual Adversarial Examples under Bounded-Memory Streaming Shifts
  Yurui Zhou
- PhysSDA: A Knowledge Graph Guided Agent for Physics Question Answering
  Zhiwei Zhang, Yunpeng Zhang, Tian Liu, Yijing Chen
- The application practice of the integration of quantum secure communication and blockchain technology in grassroots governance
  Gangqiang Xu, Dezhi Li, Juncheng Wang, Enwan Zhang, Bo Liu
- Important Binary Relations Preserved Concept Reduction Based on Concept Attention Mechanism
  Linkai Zhang, Junyu Bu, Siyu Zhao, Fei Hao
- Safety-Aware Channel Switching for Vehicular Platooning Networks
  Ahmad Moqri, Nigel Thomas

27 October 2026 (Tuesday)

13:30-15:30 Session CIT-1: Computer and Information Technology (I) (Room: Devonshire B)

Session Chair: Wang Miao, University of Exeter, UK

- Interacting with an extensive communicative agent
  Walleed Khan, Marylou Dubois, Helio Filho, James Elder, Michael Pickering, Michael Jenkin
- Leakage-Controlled Tactic Classification of NetworkFlows: A Comparison of Embedding-Based andClassical Machine Learning Models
  Muhammad Aaqib, Zeinab Rezaeifar, Raghi Roy, Federico Cruciani, Michael Milliken, Alfie Beard, Christopher Nugent
- Kvasir: A Cloud-Native Platform for Scalable Personal Data Management
  Stan De Groeve, Wannes Kerckhove, Thomas Dupont, Jasper Vaneessen, Jerico Moeyersons, Gregory Van Seghbroeck, Bruno Volckaert
- From Spatial Dependency to Forecasting Gain: A Controlled Study of EV Charging Demand Forecasting
  Maher Alaraj, Eyob Solomon Getachew
- From Feasibility to Efficiency: Reinforcement Learning from Human Feedback on Large HBM GPU Clusters
  Zhihui Du, Satya Jandhyala, Yao Liu, Mukhil Azhagan Mallaiyan Sathi, Vicky Tsang, Phani Vaddadi, Viswanath Vadlamani, Tiffany Mintz
- ERDG: Energy-Aware Reaction-Diffusion and Gur Game-Based Clustering for Area Coverage in Wireless Sensor Networks
  Shu-Yuan Wu, Theodore Brown
- VADERBoost: Domain-Enhanced Lexicon-Based Sentiment Analysis
  Nandhini Shanmugarajah, Lu Liu, Zeyu Fu

16:00-17:45 Session IUCC-1 & CIT-2: Ubiquitous Computing (Room: Devonshire B)

Session Chair: Jia Hu, University of Exeter, UK

- Intrusion Detection System on SpiNNaker Neuromorphic Architecture
  Morgan-Tyler Stone, Sergio Davies, Liangxiu Han
- 28 GHz V2V Channel Analysis at Street Intersection under Varying Traffic Densities for ICAS
  Weihan Xu, Robert Mueller, Tim Leinmueller, Joerg Robert

- Multi-UAV-Relay Deployment and Joint Blocklength Allocation for Massive URLLC Networks
  Qinwei He, Tian Lan, Paul Zheng, Anke Schmeink
- AHPoA: Audit-based Honesty Proof of Authority for IoT Consortium Blockchains
  Guohao Chen
- Vector-Quantized Graph Knowledge Tracing for Stable and Interpretable Representation Learning
  Longcheng Li, Leilei Shi, Hongyun Wang, Lu Liu, Zixuan Han, Liang Jiang
- Using Home Assistant to Manage Experiment-Level Data in University Laboratories
  Alexander Haustein, Dominik Bissinger, Marcel Sladkov, Andreas Roppertz, Alexander Korth
- Multi-Target Tracking Using Distributed MIMO Radar
  Ritu Ranjna, Athanassios Manikas

Part III: TECHNICAL SESSIONS OF DSCI-2026 and IOI-2026

27 October 2026 (Tuesday)

16:00-17:45 Session DSCI-1 & IOI-1: Predictive Modelling and Intelligent Systems (Room: Devonshire A)

Session Chair: Rui Jin, University of Exeter, UK

- Fast Procedural Heterogeneous Terrain Modelling using Feature Splatting
  Stephen Haoqian Xu, Ligang He
- CalibCycle: Calibrating Cycle Priors for Lightweight Multivariate Time Series Forecasting
  Chuanru Ren, Yunyin Li, Hao Tang, Hengxiao Li, Yao Lu, Cheng Wang
- Beyond Random Splits: Leakage-Aware Temporal Validation of Explainable Ensemble Models for Urban NO_2 Prediction
  Arslan Amin, Trung Thanh Nguyen, Liangxiu Han, Peter Moore, Greg Martin, Carol Pollitt, Rebecca Chawner
- RaCD-Net A Deep Learning Framework for Cancer Diagnosis from Scarce and Degraded Raman Spectra
  Hao Tang, Mengqi Li, Lu Liu, Nick Stone
- Belief-Adaptive Online Autonomy for Quadrotor UAV Navigation under GNSS Degradation in Urban Environments
  Deepak Kumar Panda, Weisi Guo
- Data-Centric AI Implementation Layers for UAE Utility Institutions: An Integrated DataOps and MLOps Framework
  Mohammed Kullab, ARYATI BINTI BAKRI
- From Misconfiguration to Breach: An Experimental Study of IAM Exploitation in AWS
  Rafid Al-Khannak, Rishwanth Krishna Kokku

16:00-17:45 Session DSCI-2: Data-Driven Analytics and Intelligent Optimisation (Online Room 4)

Session Chair: Tian Xiao, China Unicom Research Institute & Beijing University of Posts and Telecommunications, China

- ScalePOI: Parallel Distance Computation for Density-Based POI Recommendation
  Doja Aljuhaiman, Abdullah Albarrak
- A Machine-Learning-Driven Common Evaluation Framework for Hurricane-Resilient Supply Chain Network Design
  Tong Xue, Zekun Liu, Xiaorui Zhao
- Data-Driven Distributionally Robust Scheduling of Emergency-Response UAVs with Capacity Reservation and Dynamic Rescheduling
  Zhengrui Li, Xin Zeng

- CRONOS-RL: A Placebo-Controlled Diagnostic Study of Regime Conditioning in Offline Reinforcement Learning
  Xiaorui Zhao, Jia Liu, Tong Xue
- YOLOv8-st: A Lightweight and Attention-Enhanced Network for Road Damage Detection
  Jing Shen, Zhihao Zhang, Kening Tang, Bowen Yang
- Toward AI-Driven Expense Analytics: An Expense Item Category Dataset
  Thi My Dung Tran, Zhongwei Zhang, Thong Nguyen-Huy, Aqeel Sahi
- A Transfer Learning-Based Cross-Station Water Level Prediction Method for the Xijiang River
  Qinghu Zeng, Yeying Jiang, Kai Gao, Guangyao Pang, Hailun Liang, Xiaonan Luo, Linming Lian

Part IV: TECHNICAL SESSIONS OF Associated Workshops/Symposia

NDMAD-2026 TECHNICAL SESSIONS

Natural Disaster Monitoring, Assessment and Decision-Making

26 October 2026 (Monday)

13:30-15:30 Session NDMAD-1 (Online Room 4)

Session Chair: Wei Han, China University of Geosciences, China

- ETQR-SCO: Edge-Texture Query Refinement and Subject-Aware Candidate Optimization for Referring Expression Counting
  Yixin Xu, Kaiqiong Sun, Yifei Wang, Yuhai Zhang, Yuxuan Li
- Mining Prototype Alignment UNetFormer for Fine-Grained Semantic Segmentation of Open-Pit Mining Areas
  Liyin Shi
- Sensitive-Feature-Enhanced Transformer for Hyperspectral remote sensing Lithological Mapping
  Sheng Wang, Shuanglin Xiao, Xiaohui Huang, Yuewei Wang, Wei Han
- A Dual-Gated Agent for Feature Selection in Property Prediction from Reflectance Spectra
  Wenjin Fan, Sheng Wang, Yuewei Wang
- DGLC-Net: A Dual-Teacher Group-Memory Local-Consensus Network for Cross-Date Hyperspectral Rice Exposure Mapping
  Yan Wang, Kaijun Yang, Sheng Wang, Guangwei Liu, Li Cao, Xiaohui Huang
- Grassland Aboveground Biomass Estimation Incorporating Climate Factors in Xilin Gol League
  Dongyu Zhu, Xiaoyu He, Zhu Tao, Enting Jiang, Danqing Xu, Yaqin Li
- Quantifying Multimodal Contributions to Landslide Detection via Sequential Ablation: A Case Study of Jiuzhaigou and Ludian
  Shijun Shu, Kan Sun, Maowen Fei, Yanxia Huang, Zhu Tao
- A National Framework for Disaster-Ecological Monitoring around Expanding Open-Pit Mines
  Yiwen Tang, Xinyu Zhang, Yuewei Wang, Sheng Wang

AINet-2026 TECHNICAL SESSIONS

AI-driven Network

28 October 2026 (Wednesday)

9:00-11:00 Session AINet-1 (Online Room 1)

Session Chair: Lexi Xu, China Unicom, China

- Research on Railway Data Governance Architecture: A DCMM-DataOps Fusion Perspective
  Chenying Ren, Wei Peng, Chao Zhang, Shi Shu, Xili Sun, Yiyan Cui
- A Spatiotemporal Behavior-Aware Multi-Modal Rental Property Recommendation System with Graph Neural Network Enhancement
  Qian Chen, Dongju Yu, Dong Wang, Wenlong Wu, Shanshan Han, Wanqing Bao, Yirui Wang, Yuxuan Zhang, Duo Li
- Design and Implementation of AI-Native Router in DDoS Attack Detecting and Filtering Scenario
  Shuai Zhang, Ran Pang, Yifeng Xiong, Jing Zhao, Qiang Xue, Huaikai Fu, Chang Cao, Xiongyan Tang
- Intelligent Model Recommendation for Hardware Lifespan Prediction: Comprehensive Benchmark and Analysis
  Yunfei Cao, Chang Cao, Yan Zhang, Liwen Wang, Yongsheng Liu, Yuzhe Cui, Yang Li, Lexi Xu
- A Data-Driven Maturity Assessment Framework for Smart City Data Infrastructure: Multi-Source Indicator Fusion with Unsupervised Clustering
  Liangwen Li, Tingwen Liu, Xuan Jia, Bo Yuan, Siyuan Wang, Fenghui Zhang, Yuxin Zhang, Boya Li
- Lyapunov-Guided Potential Learning for Dynamic Resource Allocation in Ultra-Dense Edge Networks
  Tingwen Liu, Junrui Lin, Yilin Li, Bo Yuan, Xuan Jia, Liangwen Li, Haoran Peng, Dongdong Xu
- Confidence-Aware RedCap Capability Learning from Mobility History for 5G NR ANR
  Yichen Xie, Shanshan Li, Lixin Li, Ningyan Guo, Lexi Xu, Jianye Han, Jiangtian Xie, Bangjing Yang

11:15-13:00 Session AINet-2 (Online Room 1)

Session Chair: Lexi Xu, China Unicom, China

- A Lightweight Two-Dimensional Post-Evaluation Framework for 5G-A Carrier Aggregation Based on CRITIC-GRA
  Lu Zhi, Lianjun Li, Jiajia Zhu, Xiaogang Wang, Yan Zhang, Danjing Wang, Qinrong Chen, Zhiming Wang, Chunlin Li, SiRui Zhong
- Self-Evolving Architecture based on LLM Agents for Computing-Network Cloud Pool Operations and Maintenance
  Yue Tan, Liwen Wang, Hui Liu, Rengan Dou, Yan Zhang, Xiaohan Xia, Xiangjiang Wen, Lexi Xu
- AgentConn: Autonomous Intent-Driven Path-Resilient Connectivity for LLM-Based Agents
  Liwen Wang, Yan Zhang, Chang Cao, Xiongyan Tang, Yunfei Cao, Jindian Liu, Lexi Xu
- TrustAnnot with Dynamic Trust and Verifiable Provenance for Collaborative Annotation
  Feng Gao, Chang Song, Xi Chen, Zhiyang Zheng , Chao Wang, Yu Xiao
- PECO: Prognosis-Driven Energy-Aware Orchestration for Computing-Network Convergence
  Linyu Li, Jieli Wang, Yanming Chen, Tong Liang, Baoyu Fan, Qin Wang, Zhengyang Lai, Wenwen Li
- Research on CSI Compression Feedback Architecture Optimization Based on Multi-Scale Residual Networks
  Wei Zhou, Rong Huang, Bin Fan, Shan Liu, Bo Pang, Huanhuan Liu

AISys-2026 and SAGIINAT-2026 TECHNICAL SESSIONS

AI-driven Smart System

28 October 2026 (Wednesday)

9:00-11:00 Session AISys-1 (Online Room 2)

Session Chair: Qinding Zhang, China Unicom Beijing Branch, China

- Research on Key Technologies of Process Industry Digital Intelligence Factory
  Bao Guo, Jinge Guo, Jiayu Li, Yingtao Meng, Xuefeng Han, Weitong Gao, Yang Zhang
- Antenna Coverage Optimization Method and System Based on High-speed Railway Scenario
  Bao Guo, Jinge Guo, Jiayu Li, Yu Qiu, Longgang Han, Ruowei Yin, Yang Zhang
- RedCap Evolution and Optimization
  Pengcheng Liu, Rui Wang, Jiayu Li, Jiangtao Tian, Mingjie Yang, Shenglong Li, Haowei Wang, Tingting Wang, Qian Wang
- Development and Prospect of Computing Power Network in the 5G Era
  Pengcheng Liu, Rui Wang, Mingjie Yang, Shenpeng Feng, Jiayu Li, Yilin Tan, Yawei Yang, Kai Yang, Liang Cui
- AI Agent-Driven Full Lifecycle Network Resource Governance: A Unified Framework for Intelligent Operations
  Yuan Li, Zebing Yan,Zhongsheng Cai, Jia Jia, Pengfei Shen, Huijing Pang, Haozhe Luo
- A Noval Negotiated Interference Coordination Method for NCR Relay
  Bao Guo, Jinge Guo, Jinhu Shen, Jiayu Li, Pengcheng Liu, Yang Fang, Yang Zhang
- Lightweight Semantics-Aware Channel Knowledge Map Construction for 6G Digital Twin Networks
  Ya'nan Zhang, Tian Xiao, Bei Li, Chenrui Zang, Qi Shao, Ruojing Hao, Lexi Xu, Zijing Yang, Ming He
- Federated Distillation-PPO Based Robust Offloading Framework for UAV-MEC
  Jihua Li, Shuoshuo Chen, Jianlong Liu, Meng Li, Yangfei Li, Shasha Li, Xiaoli Yuan, Qinding Zhang

11:15-13:00 Session AISys-2 & SAGIINAT-1 (Online Room 2)

Session Chair: Xin Dong, Beijing Jiaotong University, China

- An Integrated AI Computing Platform for Full-Lifecycle Model Delivery
  Shouhao Qin, Ming He, Runsha Dong, Ya'nan Zhang, Xiaodong Cao, Lexi Xu, Jiayu Xie
- PresRecSR: Knowledge-Guided Symptom Completion and Compatibility-Aware Reranking for Herbal Prescription Recommendation
  Xin Dong, Geyan Pan, Xiaolong Xu, Zhicheng Qu, Ye Li, liya shan, Wei Guo, Xuezhong Zhou, Lexi Xu
- AIOps-Driven Safety-Prioritized Resource Management for IoT-Enabled Healthcare Networks
  Lin Chen, Liya Shan, Zhuoyong Lin
- Domain Ontology Modeling with Interface Contracts for LLM-Empowered Intelligent Auditing of Enterprise Business Card Services
  Hong Wu, Tiange Qu, Huiying Zhao, Jian Chang, Junping Du, Shan Gao, Huiqin Jin, Jingkai Hu, Chao Wang, Kunyan Li
- Quantitative Research and Verification on Configuration Stability of LEO Mega-Constellations
  Xueyang Zhang, Mingyu Qin, Shuaijun Liu, Yuting Zhang, Wenli Yan

- Safe Game-Guided Multi-Agent Power Control for SpectrumSharing Between Coexisting LEO Constellations
  Yuanyuan Liu, Ruofan Jin, Ping Zhou, Xin Xiao, Qi Chen
- Reinforcement Learning for Routing in Space-Air-Ground Integrated Networks: A Survey
  Tianchen Feng, Shuaijun Liu, Lixiang Liu

MLSys-2026 TECHNICAL SESSIONS
Machine Learning assisted Smart System
28 October 2026 (Wednesday)

9:00-11:00 Session MLSys-1 (Online Room 3)

Session Chair: Cheng Wang, Beijing University of Posts and Telecommunications, China

- Evaluating Token Consumption and Cost-Effectiveness of Large Language Models in IT Operations
  Lu Bai, Zexin Wang, Zhihuang Peng, Sisi Qin, Feng Cao, Yang Cheng, Dongwei Yan, Kexin Qi
- TEER-RAG: Temporal Evidence Evolution Graph-Enhanced Retrieval-Augmented Generation for Fake News Detection
  Xinlei Peng, Yujie Wang, Xiaoqing Peng, Linyi Jia, Ziqi Li
- Lightweight Semantic-Aware Vision-Aided RIS for Dynamic Blockage Avoidance in 6G
  Yanan Zhang, Fan Xu, Bei Li, Qi Shao, Ruojing Hao, Deyi Li, Ming He, Lexi Xu, Yuan Tian
- Generative Digital Twin Framework for Dynamic Resource Scheduling in 6G Integrated Sensing and Communication Networks
  Deyi Li, Lexi Xu, Xinzhou Cheng, Jie Gao, Shengli Guo, Rong Li, Xiaomeng Zhu
- Data-Driven RIS Differential Coverage Gain Optimization Method Based on Grid Weak-coverage Grading
  Zixiang Di, Jinjian Qiao, Zhaoxing Li, Bei Li, Tian Xiao, Yuan Tian, Yan Zhang, Pengfei Li, Pei Wang, Fan Xu
- Industrial Multi-Protocol Convergence Networking and Deterministic Transmission Based on TSN Hybrid Scheduling Mechanism
  Mingde Huo, Shangyu Tang, Peng liu, Xuetao Sun, Jingbo Xiang, Lexi Xu, Yan Zhang, Qiancheng He, Xiang Wang
- Research on Unstructured Data Processing Technology in the Field of Information and Communication
  Yuping Yan, Hanyang Xie, Yanning Shao, Sijia Wang, Wenyuan Wu, Weiyi cheng, Shilian Yu, Yanmei Liu, Chen Kang
- A Knowledge Graph-Enhanced Agent for Question Answering in Elderly Care
  Mengfan Zhao, Ligang Ren, Ying Xing, Zhiqiang Fan, Song Han, Bin Yang, Jinchao Huang, Lexi Xu
- A Knowledge Graph Error Detection Method Based on Multimodal Decision-Level Fusion
  Ying Xing, Ziwei Qie, Jinchao Huang, Dong Tian, Jie Yang, Le Ma, Bin Yang, Lexi Xu

11:15-13:00 Session MLSys-2 (Online Room 3)

Session Chair: Gaofeng Cui, Beijing University of Posts and Telecommunications, China

- A Systematic Method and Implementation Process for High-Quality Dataset Quality Evaluation
  Jingshi Yang, Yuzhen Bai, Jinrui Tong, Ailin Lv, Siyuan Wang, Xuan Jia, Bo Yuan
- Provisioning-Aware Predictive Post-Quantum V2X Handover
  Enwan Zhang, Xingbin Zhan, Kunzi Li, Haitao Liu, Juncheng Wang, Ying Yu, Gangqiang Xu, Mingyan Dai, Li Xu, Qiqiang Zhang, Fei Yao

- EviCoPilot: An Evidence-Chain-Centric Human-in-the-Loop Multi-Agent Framework for Enterprise Capability Assessment
  Yuan Liu, Shilian Yu, Xiaolu Han
- Intelligent Grading Evaluation for Optical Cable Network: Operational Deficiency Diagnosis and Improvement
  Zhifei Liu, Ting Pan, Jianjian Yang, Keji Zhou, Zhanchun Zhao, Yongjian Zhao, Ding Zhang, Lexi Xu, Yalong Wu, Zhijia Wang, Shiyu Pan
- Emotion-Driven Cross-Cultural Artifact Description Generation with Multimodal Large Models
  Yue Wang, Yinjie Zhao, Wenzhe Cai, Yufang Jing, Xia Lin, Wentao Zhang, Fan Zhang, Xishan Zou, Meng Li
- Reliability-Aware Evidence Control for Reducing Hallucinations in Private-Domain Question Answering
  Feng Gao, Chang Song, Zhiyang Zheng, Wei Wang, Mengxiang Han
- DGRF-F: Selective Dynamic Graph Residual Fusion for Multi-Region Load Forecasting
  Yonghao Xing, Ying Xing, Changcen Sun, Bin Yang, Lexi Xu
- MLP-based 5G-A Intelligent Wireless Coverage Prediction Scheme
  Tian Xiao, Yanan Zhang, Bei Li, Chenrui Zang, Fan Xu, Zixiang Di, Jiajia Zhu, Guoping Xu, Lexi Xu
- A Quantitative Method for Prioritizing the Implementation of AI Applications in Central and State-Owned Enterprises
  Yanning Shao, Chen Kang, Yuping Yan, Hanyang Xie, Wenyuan Wu, Yongjiao Yang, Shilian Yu, Sijia Wang

BDRA-2026 TECHNICAL SESSIONS
Big Data Research and Application
28 October 2026 (Wednesday)

9:00-11:00 Session BDRA-1 (Online Room 4)

Session Chair: Bei Li, Research Institute, China United Network Communication Corporation, China

- Research on Beam Tracking Unit and Dynamic Control System
  Bao Guo, Jinge Guo, Jiayu Li, Hongbo Long, Chuang Xiao, Dong Liu, Yang Zhang
- PCQD-Mix: Metadata-Conditioned,Label-Preserving Augmentation for ControlledStress Testing of mmWave Vital-Sign Time Series
  Yuanbo Zhang, Chenyu Zhao, Yuhan Wu, Shuai Zhao
- Constraint-Aware Potential Linkage Mapping for Smart Elderly-Care Industrial Chains: An Enterprise-Level Big Data Study
  Yuntao Li
- Intelligent Adaptive Fragrance Regulation System for Vehicles Based on Pressure Sensing Array
  Zezheng Chen
- Intelligent Identification of Backbone Base Stations in Wireless Networks Based on Graph Theory
  Yue Liu, Li Xu, Min Chen, Zhenwei Jiang, Yi Zeng,Yazhou Shi, Haocong Zhou
- Representative Data Services and Network Requirements Analysis for 5G-A
  Bei Li, Zhang Ya'nan, Tian Xiao, Zixiang Di, Qian Song, Guang Xu, Wei Zhang, Cong Li, Zhaoning Wang, Chi Zhang, Lexi Xu

- An Evolutionary Framework for Data Asset Pricing: From Cost Orientation to Market Equilibrium
  Mengyuan Qiu, Yufei Li, Chao Wang, Chunyu Jiang, Zhimeng Bai, Daiyan Liu

11:15-13:00 Session BDRA-2 (Online Room 4)

Session Chair: Mohammed Kullab, Universiti Teknologi Malaysia, Malaysia

- GNN-based Intelligent Emergency Alerting Scheme for Co-sharing Networks Large-Scale Failures
  Xu Fan, Zhang Ya'nan, Wang Haifang, Zang Chenrui, Xiao Tian, Zhang Chi, Gu Gan, Li Jiayou
- Empirical Analysis on Security Governance Path of Artificial Intelligence Application in Financial Field
  Tianhao Zhang, Xuesong Zhang
- Practice on Green and Low-Carbon Operation of Telecommunication Networks Based on Network-Wide Full-Element Resource Adaptation and Intensive Equipment Consolidation
  Jinhu Shen, Bowei PU, Ning Zhang, Xuemin Huang, Yaxi Hu, Xing Liang, Jiaqi Wang, Zhiyan Cheng
- Industrial Prosperity Forecasting Model Based on Multimodal Sentiment Analysis of Public Opinion News
  Heng Zhang, Jihua Li, Wei Xia, Mingxin Li, Xinzhou Cheng, Lijuan Cao, Kun Chao, Mingde Huo, Ruojing Hao, Zhenqiao Zhao, Ya'nan Zhang
- Construction and Operation Pathways for High-Quality Industry Datasets: Cross-Sector Differences in Emphasis
  Yongjiao Yang, Yuping Yan, Hanyang Xie, Yanning Shao, Yuzhen Bai, Wenyuan Wu, Sijia Wang

MVIC-2026 TECHNICAL SESSIONS
Machine Vision and Intelligent Control
28 October 2026 (Wednesday)

9:00-11:00 Session MVIC-1 (Online Room 5)

Session Chair: Guangyao Pang, Wuzhou University, China

- A Comparative Study of Big Data-Based Models for Ship-Lock Traffic Volume Forecasting
  Guanqing Yang, Huajian Chen, Liuyuan Lu, Cuijie Wang
- A YOLOv8-Based Method for White Blood CellDetection and Classification in the Auxiliary Diagnosis of Blood Disorders
  Xuyi Yao, Caili Huang, Cong Chen,
- Content Popularity Prediction for Based on Multi- Graph Fusion Spatio-Temporal Network
  Linming Lian, Qinghu Zeng, Guangyao Pang, Chenyi Lu
- EduWriteLoop: An Evidence-Driven Large Language Model Orchestration Framework for Process Writing in Higher Education
  Minjie Nie, Xiaoying Zhu, Hongni Li, Yue Chen
- MADCLIP: Memory-based Anomaly Detection CLIP for Few-Shot Visual Anomaly Detection
  Wenrui Zhong, Xuyi Yao, LinMing Lian, Chang Qin, Min Tao
- Resource-Constrained Adaptation of Chinese LegalLLMs: An End-to-End Study from Continual Pre-Training to Tool-Augmented Inference
  Nuo Lei, Min Tao, GuangYao Pang, Jiasheng Chen, Zizhen Peng, Qinglan Chen, Meisi Ye

Floor Plan

Ground Floor Layout
Entrance
Devonshire A
Devonshire B
Restaurant
Service
Service
Bar
Hartington Room
Office
Burlington Room
Bar
Ladies
Gents
Chatsworth Room
Drakes Bar
Reception
Concierge
Foyer
Lift
Lounge
Derby Room
Cocktail Bar
Hotel Entrance
Car Park
Cavendish Suite
Entrance
Entrance