CAIT2026 Special Session I

Special Session Basic Information:

Session Title	中文：面向数字经济的人工智能 英文：Digital Economy-Oriented Artificial Intelligence

Introduction and topics

中文： 数字经济正在从“数据要素驱动”进一步迈向“智能能力驱动”。随着大语言模型、多模态模型、自主智能体、检索增强生成、工具调用、AI Skill、知识增强与可信人工智能等技术的发展，人工智能已不再只是信息处理工具，而是逐步演化为能够理解业务目标、整合外部知识、调用专业工具、执行复杂流程并支持决策分析的智能基础设施。面向数字金融、智能产业、企业服务、数字治理和新型经济活动等场景，如何构建可靠、可解释、可审计、可复用的人工智能方法与系统，已成为人工智能服务数字经济高质量发展的关键问题。

本专题拟聚焦面向数字经济的人工智能理论、方法、系统与应用，重点关注新一代人工智能技术在数字金融与智能经济中的创新发展和落地应用。与传统的数字经济智能化研究相比，本专题更加关注可执行、可协同、可验证的 AI 能力机制，包括大语言模型与自主智能体在金融分析、投研决策、风险管理、企业年报理解、智能办公、产业服务和数字治理中的应用；AI Skill、工具调用、工作流编排、检索增强生成、多智能体协同、强化学习与自反思机制在复杂经济任务中的作用；以及模型幻觉、数据忠实性、逻辑一致性、隐私安全、合规治理和可信评估等关键挑战。通过本专题，会议将汇聚人工智能、金融科技、数字经济、智能系统与产业应用领域的研究者，推动可信、稳健、高效的面向数字经济人工智能技术体系建设。

英文： The digital economy is moving from data-resource orientation toward intelligence-capability orientation. With the rapid development of large language models, multimodal models, autonomous agents, retrieval-augmented generation, tool use, AI Skills, knowledge-enhanced intelligence, and trustworthy AI, artificial intelligence is no longer merely an information-processing tool. It is evolving into an intelligent infrastructure that can understand business objectives, integrate external knowledge, invoke professional tools, execute complex procedures, and support analytical and decision-making processes. For digital finance, intelligent industries, enterprise services, digital governance, and emerging economic activities, building reliable, explainable, auditable, and reusable AI methods and systems has become a key challenge for promoting the high-quality development of the digital economy.

This special session focuses on theories, methods, systems, and applications of digital economy-oriented artificial intelligence, with particular attention to the innovation and deployment of next-generation AI technologies in digital finance and the intelligent economy. Compared with traditional studies on the intelligent transformation of the digital economy, this session emphasizes executable, collaborative, and verifiable AI capability mechanisms. Topics include large language models and autonomous agents for financial analysis, investment research, risk management, annual-report understanding, intelligent office automation, industrial services, and digital governance; AI Skills, tool use, workflow orchestration, retrieval-augmented generation, multi-agent collaboration, reinforcement learning, and self-reflection mechanisms for complex economic tasks; as well as key challenges such as model hallucination, data faithfulness, logical consistency, privacy protection, security, regulatory compliance, and trustworthy evaluation. The session aims to bring together researchers and practitioners from artificial intelligence, financial technology, digital economy, intelligent systems, and industrial applications to promote reliable, robust, and efficient AI technologies for the digital economy.

Theories, methods, and systems of digital economy-oriented artificial intelligence;

2. Large language models, multimodal foundation models, and autonomous agents for digital finance and intelligent economic applications;

3. AI Skills, tool use, workflow orchestration, and reusable task-oriented AI capabilities for economic and financial scenarios;

4. Retrieval-augmented generation, knowledge graphs, and domain knowledge enhancement for financial analysis and economic decision support;

5. Multi-agent collaboration, planning, reflection, and self-correction for complex business, financial, and governance tasks;
6. AI-driven financial analysis, annual-report understanding, investment research, risk management, fraud detection, and intelligent advisory systems;
7. Trustworthy AI, hallucination detection, factuality evaluation, logical consistency, explainability, and robustness in high-stakes economic domains;
8. Privacy-preserving, secure, compliant, and auditable AI systems for finance, business, and digital governance;
9. AI-assisted digital transformation of enterprises, industries, public services, and intelligent office systems;
10. Efficient deployment, lightweight adaptation, human-AI collaboration, and cost-effective AI applications for the digital economy.

Special Session Chair(s):

姓名 **Name**	Di Han / 韩迪
职称 **Prefix**	Professor
部门 **Department**	School of National Finance
单位 Organization	Guangdong University of Finance
城市/地区 **City/Region**	Guangzhou, Guangdong, China
Email	dihan@gduf.edu.cn

Organizer's Brief Biography

Di Han received his Ph.D. degree in Computer Science from Macau University of Science and Technology. He is currently a Professor at Guangdong University of Finance. His research interests include financial technology, large language models, natural language processing, machine learning, recommender systems, and risk management. His recent work focuses on LLMs, financial agents, digital finance, and AI-enabled economic forecasting, with applications in financial analysis, risk identification, investment research, and digital-economy scenarios. He has published over 40+ research papers in international journals and conferences and has served as a reviewer for IEEE Transactions on Knowledge and Data Engineering, ACM Transactions on Knowledge Discovery from Data, Engineering Applications of Artificial Intelligence, Big Data Management and Analytics, etc.